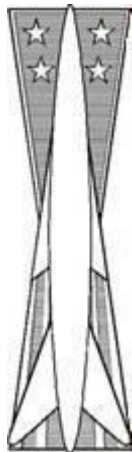
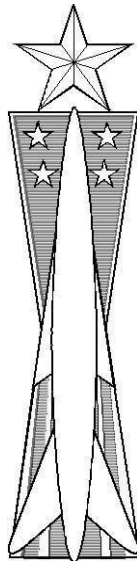


## 2M0X3

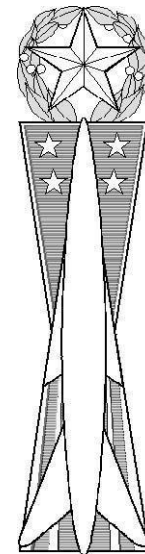
### MISSILE AND SPACE FACILITIES MAINTENANCE



BASIC



SENIOR



MASTER

### CAREER FIELD EDUCATION AND TRAINING PLAN

**ACCESSIBILITY:** Publications and forms are available on the e-publishing website at [www.e-publishing.af.mil](http://www.e-publishing.af.mil) for downloading or ordering.

**RELEASABILITY:** There are no releasability restrictions on this publication.

**SUMMARY OF CHANGES:** This publication has been changed substantially and should be reviewed in its entirety.

**CAREER FIELD EDUCATION TRAINING PLAN  
MISSILE AND SPACE FACILITIES MAINTENANCE  
AFSC 2M0X3**

Table of Contents

<b>PREFACE</b>	<b>4</b>
----------------	----------

**PART I**

---

**A. GENERAL INFORMATION**

A.1. Purpose.....	5
A.2. Uses.....	5
A.3. Coordination and Approval.....	5

**B. CAREER PROGRESSION AND INFORMATION**

B.1. Specialty Description.....	6
B.2. Skill and Career Progression.....	6
B.3. Training Decisions.....	7
B.4. Community College of the Air Force.....	8
B.5. Career Field Path.....	8

**C. SKILL LEVEL TRAINING REQUIREMENTS**

C.1. Purpose.....	12
C.2. Missile and Space Facilities Maintenance Apprentice (3-skill level).....	12
C.3. Missile and Space Facilities Maintenance Journeyman (5-skill level).....	12
C.4. Missile and Space Facilities Maintenance Craftsman (7-skill level).....	13
C.5. Missile and Space Superintendent (9-skill level).....	14

<b>D. RESOURCE CONSTRAINTS</b> .....	<b>15</b>
--------------------------------------	-----------

**PART II**

---

**A. SPECIALTY TRAINING STANDARD**

A.1. Implementation.....	16
A.2. Purpose.....	16

<b>B. COURSE OBJECTIVE LISTING</b> .....	<b>18</b>
--	-----------

<b>C. SUPPORT MATERIALS</b> .....	<b>18</b>
-----------------------------------	-----------

**D. TRAINING COURSE INDEX**

D.1. Purpose.....	18
D.2. 3-Level Awarding Course.....	18
D.3. Other In-Residence Courses.....	18
D.4. Distance Learning/Distributed Learning Courses.....	19

D.5. Other Distance Learning Courses ..... 20

**E. MAJCOM UNIQUE REQUIREMENTS ..... 20**

**Attachment 1. Proficiency Code Key..... 21**

**Attachment 2. 2M0X3 Specialty Training Standard..... 22**

OPR: AF/A4LW  
Certified By: CMSgt Jerry L. Phillips, AF A4LW 2M0 Career Field Manager  
Supersedes: CFETP2M0X3, 13 October 2017  
Pages: 50

## PREFACE

1. This Career Field Education and Training Plan (CFETP) is a comprehensive education and training document that identifies life cycle education and training requirements, training support resources, and minimum core task requirements for the 2M0X3, Missile and Space Facilities Maintenance specialty. The CFETP provides personnel a clear career path to success and instills rigor in all aspects of career field training. This CFETP does not apply to uniformed members of the United States Space Force (USSF), Air National Guard (ANG), or Air Force Reserve (AFR). This CFETP was developed in accordance with DAFI 36-2670, *Total Force Development*.

2. The CFETP consists of two parts; supervisors plan, manage, and control training within the 2M0X3 career field using both parts of the plan.

2.1. Part I provides information necessary for overall management of training in the career field. **Section A** explains how individuals will use the plan; **Section B** identifies career progression information, duties and responsibilities, training strategies, and career field path; **Section C** associates each skill level with specialty qualifications (knowledge, education, experience, training, and other); and **Section D** indicates training resource constraints. Some examples are: funds, manpower, equipment, and facilities. **Section E** identifies transition training guide requirements for SSgt through MSgt (not used).

2.2. At the unit level, supervisors and trainers use Part II to identify, plan, and conduct training commensurate with the overall goals of this plan. Part II includes the following: **Section A** identifies the Specialty Training Standard (STS), its purpose and how to use it, **Section B** contains the course objective list and training standards supervisors use to determine if Airmen satisfied training requirements. **Section C** identifies available on-the-job (OJT) support materials. An example is a Qualification Training Package, which may be developed to support proficiency training. **Section D** identifies a training course index supervisors can use to determine resources available to support training. **Section E** can be used to identify Major Command (MAJCOM) unique training requirements supervisors can use to determine additional training required for the associated qualification needs.

2.3. The attachments contain the specific references to tasks and guidance to use for training.

3. Using guidance provided in the CFETP ensures individuals in this specialty receive effective and efficient training at the appropriate points in their career. This plan enables us to train today's workforce for tomorrow's tasks.

## PART I

### Section A - GENERAL INFORMATION

**1. Purpose.** This CFETP provides the information necessary for Air Force Career Field Managers, MAJCOM Functional Managers, commanders, training managers, supervisors, and trainers to plan, develop, manage, and conduct an effective and efficient career field training program. The plan outlines the training individuals in the Missile and Space Facilities Maintenance specialty should receive in order to develop and progress throughout their career. This plan identifies initial skills, upgrade, qualification, advanced, and continuation training. The CFETP has several purposes—some are:

- 1.1.** Serves as a management tool to plan, manage, conduct, and evaluate a career field training program. Also, it is used to help supervisors identify training at the appropriate point in an individual's career.
- 1.2.** Identifies task and knowledge training requirements for each skill level in the specialty and recommends education and training throughout each phase of an individual's career.
- 1.3.** Lists training courses available in the specialty, identifies sources of training, and the training delivery method.
- 1.4.** Identifies major resource constraints that impact full implementation of the desired career field training process.

**2. Uses.** The plan is used by MAJCOM Functional Managers and supervisors at all levels to ensure comprehensive and cohesive training programs are available for each individual in the specialty.

- 2.1.** AETC training personnel develop or revise formal resident, nonresident, field and exportable training based upon requirements established by the users and documented in Part II of the CFETP. They also work with the Air Force Career Field Manager to develop acquisition strategies for obtaining resources needed to provide the identified training.
- 2.2.** MAJCOM Functional Managers ensure their training programs complement the CFETP mandatory initial, upgrade, and proficiency requirements. OJT, resident training, and contract training or exportable courses can satisfy identified requirements. Ensure MAJCOM-developed training to support this AFSC is identified for inclusion into the plan.
- 2.3.** Each individual completes the mandatory training requirements specified in this plan. The list of courses in Part II is used as a reference to support training.

**3. Coordination and Approval.** The Air Force Career Field Manager is the approval authority. Also, the Air Force Career Field Manager will initiate an annual review of this document to ensure currency and accuracy. MAJCOM representatives and AETC training personnel will identify and coordinate on the career field training requirements. Using the list of courses in Part II, ensures elimination of duplicate training.

## PART I

### Section B - CAREER PROGRESSION AND INFORMATION

**1. Specialty Descriptions.** This section provides a description of the Missile and Space Facilities Maintenance specialty and the duties and responsibilities performed within.

**1.2. Specialty Summary.** The Missile and Space Facilities Maintenance specialty maintains, operates, services, and repairs power generation and distribution systems, and environmental control and associated support systems and equipment for missile facilities; supervises space lift activities and acquisition processes, and maintains support equipment in support of international treaties. Related DoD Occupational Subgroup: 163300.

**1.3. Duties and Responsibilities.** The Missile and Space Facilities Maintenance specialty:

1.3.1. Performs or supervises preventative and operator maintenance on missile and space lift facilities. Troubleshoots, repairs, and services missile weapon systems equipment, facilities, and support equipment (SE). Included are power generation and distribution systems such as diesel generators, automatic switching units, fiber optic lines, manual switching gear, distribution and control panels, battery systems, and associated controls; environmental control systems; air conditioning, heating, ventilation, and refrigerant systems; and space lift support systems and associated equipment. Services SE dealing with fuel, lubricants, hydraulic fluids, and air. Analyzes support facility and equipment malfunctions, and determines operational readiness. Solves interface problems between electrical and electronic equipment. Repairs or supervises maintenance of accessories and components of direct support and real-property installed equipment. Supervises space lift booster, and payload systems maintenance and launch processing. Coordinates and oversees activities of contractor personnel during space launch activities. Performs acquisition and activation activities.

1.3.2. Performs priority maintenance on systems and subsystems to assure launch capability. Performs facility and support equipment tests, adjustments, and maintenance. Diagnoses malfunctions and repairs mechanical, electrical and electronic circuitry, and heating, ventilation, and air conditioning equipment using visual and auditory senses, test equipment, systems knowledge and technical publications.

1.3.3. Monitors, repairs, and operates missile, space lift, and munitions SE. Monitors or operates fault display, checkout panels, and test stands to detect system and component malfunctions. Tests electrical circuits and security, gas detection and fire warning systems, and auxiliary power equipment for readiness. Performs inspections and operates special vehicles.

**2. Skill and Career Progression.** Adequate training and timely progression from the apprentice to the superintendent level play an important role in the Air Force's ability to accomplish its mission. It is essential that everyone involved in training do their part to plan, manage, and conduct an effective training program. The guidance provided in this part of the CFETP ensures each individual receives viable training at appropriate points in their career.

**2.1. Apprentice Training (2M033).** Initial skills training in this specialty consists of tasks and knowledge training provided in the Missile and Space Facilities Maintenance Apprentice Course (2M033). Individuals must successfully complete this initial skills course to be awarded the 3-skill level.

**2.2. Journeyman Training (2M053).** Upgrade training to the 5-skill level in the Missile and Space Facilities Maintenance specialty consists of: (1) completing the mandatory requirements identified in the Air Force Enlisted Classification Directory (AFECD) and DAFI 36-2670, *Total Force Development*, (2) completing the knowledge training provided in the 2M053 Career Development Course (CDC), (3) obtaining qualification on all 5-level core tasks identified in the applicable STS, and (4) meeting time in training requirements identified in Section C. Upgrade training can be performed by a qualified shop trainer, Maintenance Training Section (MTS) instructor, or by completing AETC Field Training Detachment (FTD) courses. After award of the 5-skill level, continuation training, when available, should be utilized based on an individual's particular duty position or other needs.

**2.4. Craftsman Training (2M073).** Upgrade training to the 7-skill level in the Missile and Space Facilities Maintenance specialty consists of: (1) completing the mandatory requirements in the AFECD and DAFI 36-2670, (2) completing the in-resident Missile and Space Craftsman Course, (3) obtaining qualification on all 7-level core tasks identified in the STS, and (4) meeting time in training requirements identified in Section C. After award of the 7-skill level, continuation or advanced training, when available, should be utilized based on an individual's particular training needs.

**2.5. Superintendent Training (2M090).** Upgrade training to the 9-skill in the Missile and Space Facilities Maintenance specialty consists of: (1) completion of the in-resident Senior Non-Commissioned Officer Academy (SNCOA), (2) and promoting to Senior Master Sergeant.

**3. Training Decisions.** The CFETP uses a building block approach (simple to complex) to encompass the entire spectrum of training requirements for the Missile and Space Facilities Maintenance career field. The spectrum includes a strategy for when, where, and how to meet the training requirements. The strategy should be apparent and affordable to reduce duplication of training and eliminate a disjointed approach to training. The training decision for skill level progression is recommended by the MAJCOMs and AETC training personnel, with the final decision authority resting with the Air Force Career Field Manager.

**3.1. Initial Skills.** Initial skills (3-level) training is provided by AETC using the Missile and Space Facilities Maintenance Apprentice Course. Completion of this course constitutes qualification on all 3-level core task requirements, unless course deviations are identified.

**3.2. Journeyman Training (5-level).** In order to successfully complete journeyman training and be awarded the 2M053 AFSC, personnel must first be awarded the 2M033 AFSC. Upon arrival to their unit of assignment, they will be enrolled in the 5-skill level upgrade training program. This starts the time-in-training countdown. They must also be qualified on all 5-level cores tasks identified in the STS and complete the 2M053 CDC. Once they have 12 months' time-in-training (9 months for retrainees) from enrollment, then journeyman training is complete and personnel are awarded the 2M053 AFSC.

**3.3. Craftsman Training (7-level).** In order to successfully complete craftsman training and be awarded the 2M073 AFSC, personnel must complete journeyman training and have been awarded the 2M053 AFSC. Once they are given a promotion line number to Staff Sergeant, they are automatically enrolled in 7-level

upgrade training, where the time-in-training countdown starts. They must also be qualified on all 7-level core tasks identified in the STS and complete the in-resident Missile and Space Craftsman Course. Once they have 12 months' time-in-training (6 months for retrainees) from enrollment, then craftsman training is complete.

**3.4. Superintendent Training (9-level).** In order to successfully complete superintendent training and be awarded the 2M090 AFSC, personnel must complete the SNCOA and be promoted to Senior Master Sergeant.

**4. Community College of the Air Force (CCAF).** Enrollment in the CCAF occurs upon completion of Basic Military Training. CCAF provides the opportunity to obtain an Associate of Applied Science Degree. In addition to its associate degree program, CCAF offers the following:

**4.1. CCAF Instructor Certification.** Upon completion of instructor qualification training, consisting of the instructor methods course and supervised practice teaching, CCAF instructors who possess an associate degree or higher may be nominated by their school commander or commandant for certification as an occupational instructor.

**4.2. Trade Skill Certification.** When a CCAF student separates or retires, a trade skill certification is awarded for the primary occupational specialty. The college uses a competency based assessment process for trade skill certification at one of four proficiency levels: Apprentice, Journeyman, Craftsman (Supervisor), or Master Craftsman (Manager). All are transcribed on the CCAF transcript.

**4.3. Degree Requirements.** All Airman are automatically entered in the CCAF program. Prior to completing an associate degree, the 5-level must be awarded and the following requirements must be met. See the current CCAF Course Catalog for specific degree requirements:

<i>Core Area</i>	<i>Semester Hours</i>
Technical Education	24
General Education	15
Program Elective	15
Leadership, Management, and Military Studies	6
Physical Education	4
Total Semester Hours	64

**4.4.** Additional off-duty education is a personal choice encouraged for all. Individuals desiring to become an AETC Instructor should be actively pursuing an associate degree. A degreed faculty is necessary to maintain accreditation through the Southern Association of Colleges and Schools.

**5. Career Field Path.**

**5.1.** Table 5-1 provides a list of possible assignments for the 2M0X3 AFSC. The assignments are subject to change without notice. Active duty members interested in assignments should consult the Assignment Management System (AMS) or MyVector Talent Marketplace for more detailed information.










Table 5.1. Enlisted Assignments

LOCATION	3-Level (AB-A1C)	5-Level (SrA)	5-Level (SSgt)	7-Level (TSgt)	7-Level (MSgt)
Minot AFB, ND	X	X	X	X	X
Malmstrom AFB, MT	X	X	X	X	X
FE Warren AFB, WY	X	X	X	X	X
Vandenberg SFB, CA		X	X	X	X
Cape Canaveral SFS, FL			X	X	X
Hill AFB, UT			X	X	
Ramstein AB, GE				X	
Los Angeles AFB, CA				X	
Barksdale AFB, LA					X
McGuire AFB, NJ					X

5.2. Table 5.2 depicts a nominal career path for the Missile and Space Facilities Maintenance specialty.

Table 5.3. 2M0X3 Career Path.

Rank	Upgrade Training	Professional Development (Note 1, 3)	Career Ladder (Note 2)
AB, Amn, A1C 	3-Level Apprentice  - Complete initial training	- First Term Airman's Center	- Technical Training Student - Technician
SrA 	5-Level Journeyman  - 12 months in training (retrainees 9 months) - 2M053 CDC completed - Certified on core tasks	- Airman Leadership School - Air Force Training Course	- Technician - Team Chief - Instructor/Trainer - Evaluator - Missile Maintenance Operations Center (MMOC) Controller - Scheduler - Maintenance Analyst
SSgt 	7-Level Craftsman  - Minimum rank of SSgt-select - 12 months in training (retrainees 6 months) - Complete Missile and Space Craftsman Course (in-resident) - Certified on core tasks	- Finish CCAF - Air Force Training Course  Opportunity to crossflow into Space lift and eligible for DSD or AETC Tech Training.	- Team Chief - Instructor/Trainer - Evaluator - MMOC - Scheduler - Maintenance Analyst  Space Lift - Mission Assurance Technician - Instructor/Trainer

<p>TSgt</p> 		<ul style="list-style-type: none"> <li>- NCO Academy</li> <li>- SEJPME</li> </ul> <p>Opportunity for USAFE assignment supporting NATO. (Note 4)</p>	<ul style="list-style-type: none"> <li>- Team Chief</li> <li>- Instructor/Trainer</li> <li>- Evaluator</li> <li>- MMOC Controller</li> <li>- Scheduler</li> <li>- Task Supervisor</li> <li>- Shop Supervisor</li> <li>- Expediter</li> <li>- NCOIC</li> <li>- MAJCOM/NAF</li> </ul> <p>Space Lift</p> <ul style="list-style-type: none"> <li>- Mission Assurance Technician</li> <li>- Instructor/Trainer</li> <li>- FIELDCOM</li> <li>- NCOIC</li> </ul>
<p>MSgt</p> 		<ul style="list-style-type: none"> <li>- SEJPME II</li> </ul>	<ul style="list-style-type: none"> <li>- Evaluator</li> <li>- Instructor/Trainer</li> <li>- Task Supervisor</li> <li>- Shop Supervisor</li> <li>- Production Superintendent</li> <li>- NCOIC</li> <li>- Flight Chief</li> <li>- MAJCOM/NAF</li> </ul> <p>Space Lift</p> <ul style="list-style-type: none"> <li>- FIELDCOM</li> <li>- NCOIC</li> <li>- Flight Chief</li> <li>- NRO</li> </ul>
<p>SMSgt</p> 	<p>9-Level Superintendent</p> <ul style="list-style-type: none"> <li>- Must promote to SMSgt and complete SNCOA.</li> </ul>	<ul style="list-style-type: none"> <li>- SNCO Academy</li> </ul>	<ul style="list-style-type: none"> <li>- Flight Chief</li> <li>- Manager</li> <li>- Production Superintendent</li> <li>- Senior Enlisted Leader (at Squadron level)</li> <li>- HAF/MAJCOM/NAF</li> </ul>
<p>CMSgt</p> 	<p>Senior Enlisted Leader (SEL)</p>	<ul style="list-style-type: none"> <li>- Chief Leadership Course</li> </ul>	<ul style="list-style-type: none"> <li>- QA Superintendent</li> <li>- Senior Enlisted Leader (at Group or Squadron level)</li> <li>- MAJCOM Functional Manager</li> <li>- Career Field Manager</li> </ul>
<p>Note 1. This should be used as a guide to expand knowledge and increase functional skills.</p> <p>Note 2. This should be used as a guide to provide supervisors and members an idea of what positions they should be striving for to gain experience as they progress through the grade and skill levels</p> <p>Note 3. The opportunity to crossflow exists at all levels at Staff Sergeant and above.</p> <p>Note 4. There are only TSgt billets assigned to Ramstein AB, GE.</p>			

**5.3. Occupational Badge Wear Guidance.** The following guidance details which occupational badges are worn by the Missile and Space Facilities Maintenance AFSC and their award criteria.

5.3.1. By HQ USAF direction, personnel no longer earn occupational badges upon graduation from the 3-skill level initial training course.

5.3.2. Upon upgrade to the 5-skill level, personnel earn the Basic Missile Badge and Basic Maintenance Badge.

5.3.3. Upon upgrade to the 7-skill level, personnel earn the Senior Missile Badge and Senior Maintenance Badge.

5.3.4. Upon promotion to Master Sergeant, personnel earn the Master Missile Badge and the Master Maintenance Badge, granted 5 years has passed since upgrade to the 7-skill level.

5.3.5. If worn together, the Missile Badge will be worn above the Maintenance Badge. Otherwise, members may choose which occupational badge (Maintenance or Missile Badge) to wear above the left US Air Force tape.

## PART I

### Section C - SKILL LEVEL TRAINING REQUIREMENTS

**1. Purpose.** Skill level training requirements in this specialty are defined in terms of tasks and knowledge requirements. This section outlines the specialty qualification requirements for each skill level in broad, general terms, and establishes the mandatory requirements for entry, award, and retention of each skill level. The specific task and knowledge training requirements are in the STS in Attachment 2 of this CFETP.

#### **2. Missile and Space Facilities Maintenance Apprentice (3-skill level).**

##### **2.1. Specialty Qualification.**

2.1.1. Knowledge. Knowledge is mandatory of electrical and mechanical principles and interpreting technical orders, diagrams, blueprints, and schematics.

2.1.2. Education. For entry into this specialty, completion of high school or a General Educational Development (GED) equivalency is mandatory.

2.1.3. Training. For award of the 2M033 AFSC, completion of the basic 3-level Missile and Space Facilities Apprentice Course is mandatory.

2.1.4. Experience. Training and qualification in all 3-level core tasks identified in the STS is mandatory. Completion of the applicable 3-level course satisfies this requirement, thus no further documentation is required.

2.1.5. Other. For entry into this specialty, the following are mandatory:

2.1.5.1. Screened for eligibility and meet requirements of the Personnel Reliability Program (PRP) as outlined in HQ AETC PRP Prescreening Guidance.

2.1.5.2. Passing color vision, as defined by correctly identifying at least 10 of 14 Ishihara Plates.

2.1.5.3. Qualification to operate government vehicles according to AFI 24-301, *Ground Transportation*.

2.1.5.4. Freedom from fear of heights or claustrophobia.

2.1.5.5. Completion of a Tier 3 Investigation according to DoDM 5200.02\_AFMAN 16-1405, *Air Force Personnel Security Program*.

**2.2. Training Sources and Resources.** Mandatory training and experience is provided in the basic 3-level apprentice course.

**2.3. Implementation.** Award of the 3-level is granted upon completion of the applicable 3-level apprentice course, if all other entry requirements have been satisfied.

### **3. Missile and Space Facilities Maintenance Journeyman (5-skill level).**

#### **3.1. Specialty Qualification.**

3.1.1. Training. Completion of the 2M053 CDC is mandatory. Additionally, qualification on all 5-level core tasks is required.

3.1.2. Experience. Qualification in and possession of AFSC 2M033. Experience is mandatory in maintenance duty sections, such as Facilities Maintenance Section (FMS), Hardened Intersite Cabling Systems (HICS), or Power Refrigeration and Electrical Laboratory (PREL). Additionally, 12 months of training from the start of Journeyman upgrade training is required (9 months for retrainees).

3.1.3. Other. For award and retention of this specialty, the following are mandatory:

3.1.3.1. Must meet eligibility requirements to fill control PRP positions.

3.1.3.2. Must maintain local area network access.

3.1.3.3. Must complete a Tier 3 investigation according to DoDM 5200.02\_AFMAN 16-1405.

**3.2. Training Sources/Resources.** The STS identifies all core tasks. This training will be provided by a qualified shop trainer, MTS instructor, or by completing AETC FTD courses.

**3.3. Implementation.** Entry into Journeyman upgrade training will be initiated when an individual possesses the 2M033 AFSC and is assigned to their unit. The individual will then be enrolled in the 2M053 CDC. Award of the 5-level is granted upon completion of all training and experience requirements, including time-in-training requirements.

### **4. Missile and Space Facilities Maintenance Craftsman (7-skill level).**

#### **4.1. Specialty Qualification.**

4.1.1. Training. Completion of the Missile and Space Craftsman Course (in-resident) is mandatory. Additionally, qualification on applicable 7-level core tasks is mandatory.

4.1.2. Experience. Qualification in and possession of AFSC 2M053. Experience is mandatory performing or supervising functions in FMS, HICS, or PREL. Additionally, 12 months of training from the start of Craftsman upgrade training is required (6 months for retrainees).

4.1.3. Other. For award and retention of this specialty, the following are mandatory:

4.1.3.1. Must meet eligibility requirements to fill control PRP positions.

4.1.3.2. Must maintain local area network access.

4.1.3.3. Must complete Tier 3 investigation according to DoDM 5200.02\_AFMAN 16-1405.

**4.2. Training Sources/Resources.** Mandatory training is provided in the Missile and Space Craftsman Course (in-resident). Other core tasks are identified in the applicable STS.

**4.3. Implementation.** Entry into Craftsman upgrade training is initiated when the individual possesses the 2M053 AFSC and is awarded a promotion sequence number to Staff Sergeant. The individual may then be scheduled to attend the Missile and Space Craftsman Course (in-resident). Award of the 7-level is granted upon promotion to Staff Sergeant, granted completion of all training and experience requirements, including time-in-training requirements have been met.

**5. Missile and Space Systems Superintendent (9-skill level).** On their Senior Master Sergeant promotion effective date, a 2M073 will automatically be awarded the 2M090 AFSC if the individual has completed SNCOA.

## **PART I**

### **Section D - RESOURCE CONSTRAINTS**

**1. Purpose.** This section identifies known resource constraints that preclude optimal and desired training from being developed or conducted, including information on cost and manpower. This section includes a narrative explanation of each resource constraint and impact statement describing what affect each constraint has on training. Also included in this section are actions required, OPR, and target completion rates. As a minimum, these constraints are reviewed and updated annually.

1.1. The Missile and Space Craftsman Course (in-resident) is awaiting development. Until the course is completed and available for scheduling, attendance is waived. All identified core tasks will still require training and certification in accordance with DAFI 36-2670. This constraint no longer applies when the course is available for scheduling, estimated October 2022.

## PART II

### Section A – SPECIALTY TRAINING STANDARD

**1. Implementation.** This STS will be used for technical training provided by AETC for 2M0X3 courses. The ICBM 3-Level course will be implemented no earlier than 15 February 2022. The STS is contained in Attachment 2, which identifies 3-level Course and 5-level CDC requirements.

**2. Purpose.** As prescribed, this STS:

**2.1.** Lists in Column 1 the applicable task numbers, identified sequentially for the task and knowledge requirements. Column 2 identifies the specific task or knowledge to be trained and Column 3 identifies the technical references necessary to train those tasks.

**2.2.** Column 4 lists core tasks for 3-, 5- and 7-skill level upgrade for the 2M0X3 AFSC. The number indicates which skill level the task is applicable for upgrade to.

**2.3.** Column 5 identifies formal training requirements and associated proficiency levels in the 3-skill level (3LVL CRSE).

**2.4.** Column 6 identifies CDC training requirements and associated proficiency levels in the 5-level CDC (5 LVL CDC).

**2.5.** Task qualifications will be documented in an automated system (TBA, TFTR, etc) and used according to DAFI 36-2670. For documentation, decertification/recertification, and transcribing procedures see DAFI 36-2670.

**2.6.** In accordance with DAFI 36-2670, the 2M0 AFCFM has directed that no core tasks require third-party certifications.

**2.7.** All 2M0X3 SNCOs, who are qualified on and are currently performing technical tasks (e.g. technician, team chiefs, instructors, evaluators), must maintain a CFETP within TBA or TFTR.

**2.8.** Space lift Tasks. Common Space lift tasks can be found in the TBA or TFTR database titled 2M0XX-000. These tasks apply to regular Air Force personnel assigned to space lift positions supporting USSF.

**2.9.** Recommendations.

2.9.1. For comments and recommendations concerning quality of AETC training, or if you need to report unsatisfactory performance of individual course graduates, please contact “532 TRS/TTV, 1472 Nevada Avenue, Vandenberg SFB, California 93437-5305,” and identify the applicable STS items and comments.

2.9.2. Additionally, a 24-hour Customer Service Information Line has been developed to report over- or under-training on task/knowledge items listed in the STS. For a quick response to any AETC training problem, call DSN 276-7039 (Comm 805-606-7039).



2.9.3. Report inadequacies and suggested corrections to this CFETP or STS to the 2M0 AFCFM through your MAJCOM functional manager. You may also identify suggested corrections or inadequacies on the 2M0 Sharepoint site at the following link:

<https://usaf.dps.mil/teams/11262/HAF/HAF-A4LW/2M0EDT/SitePages/Home.aspx>

BY ORDER OF THE SECRETARY OF THE AIR FORCE

WARREN D. BERRY  
Lieutenant General, USAF  
DCS/Logistics, Engineering and Force Protection

## PART II

### Section B - COURSE OBJECTIVE LISTING

There are currently no course objective requirements. This area is reserved.

### Section C - SUPPORT MATERIALS

There are currently no support material requirements. This area is reserved.

### Section D - TRAINING COURSE INDEX

**1. Purpose.** This section identifies mandatory and optional training courses available in the Missile and Space Facilities Maintenance specialty.

**2. Skill Level Awarding Courses.** Completion of the following course is mandatory for the award of the 3- and 7-skill level.

<i>CRS NO./TITLE</i>	<i>MDS/EQUIP</i>	<i>LOCATION</i>	<i>USER</i>
V3ABR2M033 088D Missile and Space Facilities Maintenance Apprentice	ICBM	Vandenberg	AFGSC
V3ACR2M07X 088A Missile and Space Maintenance Craftsman (available August 2022)	ICBM/ ALCM	Vandenberg	All

**3. Other In-Residence Courses.** These courses are optional courses, however, may be mandatory depending on what qualification training is needed.

<i>CRS NO./TITLE</i>	<i>MDS/EQUIP</i>	<i>LOCATION</i>	<i>USER</i>
J4AMP2M0X3 B88A/ PDS Code: 302 MMIII – Missile Maintenance Technician Fundamentals Course	ICBM	FE Warren Minot Malmstrom	AFGSC
J4AMP2M0X3 A88A/ PDS Code: 1X5 MMIII – Facilities Maintenance Technician Journeyman Course	ICBM	FE Warren Minot	AFGSC
J4AMP2M0X3 M88A/ PDS Code: 1X6 MMIII – Facilities Maintenance Technician Journeyman Course	ICBM	Malmstrom	AFGSC
J4AMP2M0XX H88A / PDS Code: 1JT MMIII – Launch Facility Entry & Exit	ICBM	FE Warren Minot Malmstrom	AFGSC
J4AMP2M0XX A88A/ PDS Code: 1X7 Special Purpose Vehicle Operators Military Driving Familiarization	ICBM	FE Warren Minot Malmstrom	AFGSC

J4AMP2M0XX B88A PDS Code: 1X8 Special Purpose Vehicle Operators Fork Lift	ICBM	FE Warren Minot Malmstrom	AFGSC
J4AMP2M0XX C88A PDS Code: 1X9 Commercial Vehicle Operations Training Fundamentals Course	ICBM	FE Warren Minot Malmstrom	AFGSC
J4AMP2M0XX E88A PDS Code: 1XB Special Purpose Vehicle Operators Crane Manual Transmission	ICBM	FE Warren Minot Malmstrom	AFGSC
J4AMP2M0XX F88A PDS Code: 1XC Special Purpose Vehicle Operators Crane Automatic Transmission	ICBM	FE Warren Minot Malmstrom	AFGSC
J4AMP2M0XX G88A PDS Code: 1Z6 Special Purpose Vehicle Operators Skid and Gravel Refresher	ICBM	FE Warren Minot Malmstrom	AFGSC
J4AMP2M0XX J88A PDS Code: 1Z9 Special Purpose Vehicle Operators Compact Loader Course	ICBM	FE Warren Minot Malmstrom	AFGSC
WNUC200, PDS Code: 2X1 AF Nuclear Fundamentals Course (Nuclear 200)	ICBM	Kirtland AFB	All
WNUC300, PDS Code: 0I5 Advanced Nuclear Concepts Course (Nuclear 300)	ICBM	Kirtland AFB	All
WNUC015 PDS Code: 0G5 AF Nuclear Certified Equipment (NCE) Users Course	ICBM	Kirtland AFB	AFGSC
V3AZR2M071 088B MILPDS: 07B Technical Engineering Course	ICBM	Vandenberg	AFGSC AFMC
MSPACE 200, MILPDS: OTR Space 200	Space	Peterson SFB	AFMC*
MSPACE300, MILPDS: OTS Space 300	Space	Peterson SFB	AFMC*
* AFMC is the supporting command for 2M0 personnel assigned to space lift positions supporting USSF.			

**4. Distance Learning/Distributed Learning Courses.** These courses are mandatory for upgrade to the 5-skill in the applicable shred-out.

<i>CRS NO.</i>	<i>COURSE TITLE</i>
CDC 2M053	Missile and Space Facilities Maintenance Journeyman

**5. Other Distance Learning Courses.** These are courses are optional, but may be mandatory, as determined by unit of assignment.

<i>CRS NO.</i>	<i>COURSE TITLE</i>
ACQ 1010	Fundamentals of Systems Acquisition Management (Defense Acquisition University)
LOG 1000	Life Cycle Logistics Fundamentals (Defense Acquisition University)
LOG 105	Fundamentals of System Sustainment Management (Defense Acquisition University)
LOG 104	Reliability, Availability, and Maintainability (RAM) (Defense Acquisition University)
LOG 0080	Designing for Supportability in DoD Systems (Defense Acquisition University)
CLL 011	Performance Based Logistics (PBL) (Defense Acquisition University)
SPACE 100	Space 100 Course (AFMC*) (National Security Space Institute)
* AFMC is the supporting command for 2M0 personnel assigned to space lift positions supporting US Space Force.	

### **Section E – MAJCOM UNIQUE REQUIREMENTS**

**1. AFGSC Unique Courses.** These courses are optional, but may be mandatory based on position.

<i>CRS NO./TITLE</i>	<i>MDS/EQUIP</i>	<i>LOCATION</i>
GSC MSL MSPC, PDS Code 00Z Missile Maintenance Supervision and Production Course	ICBM	McGuire AFB
ICBM Maintenance Evaluator Course	ICBM	FE Warren AFB

## Attachment 1. Proficiency Code Key

**A1.** Table A.1.1. contains the Proficiency Code Key (PCK) that corresponds to Columns 5 and 6 in the STS and is used to indicate the level of training knowledge provided by resident technical schools and career development courses.

Table A.1.1. Proficiency Code Key.

	Scale Value	Definition: The individual
Task Performance Levels	1	Can do simple parts of the task. Needs to be told or shown how to do most of the task. (Extremely Limited)
	2	Can do most parts of the task. Needs only help on hardest parts. (Partially Proficient)
	3	Can do all parts of the task. Needs only a spot check of completed work. (Competent)
	4	Can do the complete task quickly and accurately. Can tell or show others how to do the task. (Highly Proficient)
*Task Knowledge Levels	a	Can name parts, tools, and simple facts about the task. (Nomenclature)
	b	Can determine step by step procedures for doing the task. (Procedures)
	c	Can identify why and when the task must be done and why each step is needed. (Operating Principles)
	d	Can predict, isolate, and resolve problems about the task. (Advanced Theory)
**Subject Knowledge Levels	A	Can identify basic facts and terms about the subject. (Facts)
	B	Can identify relationship of basic facts and state general principles about the subject. (Principles)
	C	Can analyze facts and principles and draw conclusions about the subject. (Analysis)
	D	Can evaluate conditions and make proper decisions about the subject. (Evaluation)
<p><b>Explanations</b></p> <p>* A task knowledge scale value may be used alone or with a task performance scale value to define a level of knowledge for a specific task. (Example: b and 1b)</p> <p>** A subject knowledge scale value is used alone to define a level of knowledge for a subject not directly related to any specific task, or for a subject common to several tasks.</p> <p>- This mark is used alone instead of a scale value to show that no proficiency training is provided in the course or CDC.</p> <p>- (X) This mark is used alone in course columns to show that training required but not given due to limitations in resources.</p> <p><b>NOTE:</b> All tasks and knowledge items shown with a proficiency code are trained during war time.</p>		

## Attachment 2

### 2M0X3 SPECIALTY TRAINING STANDARD

TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	Core/Cert ^	Deployment * / SEI + CBRN ~	PROFICIENCY CODES	
			3 LEVEL COURSE	5 LEVEL CDC
<b>1 SPECIALTY INTRODUCTION</b>				
1.1. Duties of AFSC 2M0X3, TR: AFMAN 21-202, AFECD			A	A
1.2. 2M0X3 Career Ladder Progression, TR: 2M0X3 CFETP			A	
<b>2 ORGANIZATION</b>				
2.1. Organizational structure, TR: AFD 38-1, AFI 38-101			A	B
2.2. Functions and responsibilities of missile organizations, TR: AFMAN 21-202			A	B
<b>3 SPACELIFT MISSION, TR: AU-18, Space Primer, Space Force Capstone Doctrine Document</b>				
3.1. Space domain overview				A
<b>4 DOCTRINE</b>				
4.1. Description, TR: Basic Doctrine, Vol 1			A	
4.2. Nuclear Operations Overview, TR: Annex 3-72			A	
<b>5 ADMINISTRATION, TR: AFI 36-2670, AFMAN 21-202</b>				
5.1. Perform initial eval/work center orientation	7			
5.2. Conduct pre-dispatch/pre-task maintenance briefings	7			
5.3. Technician duties			B	
5.4. Team Chief duties				B
5.5. Task Supervisor Duties				
<b>6 TRAINING, TR: AFI 36-2670, AFMAN 21-202</b>				
6.1. Plan and supervise training programs	7			
6.2. Instructor/trainer duties				B
6.3. Conduct qualification training, TR: ICBM Trainer Course, AFTC	7			
6.4. Maintain training records	7			
<b>7 PUBLICATIONS</b>				
7.1. Standard publications, TR: DAFI 33-360				
7.1.1. Description			A	
7.1.2. Use standard publications	5			
7.2. Technical Orders (TO), TR: TO 00-5-1				
7.2.1. Description			A	
7.2.2. Use technical orders	3		3c	
7.2.3. Initiate TO improvement report	5			1b
7.2.4. Isolate faults using TO fault flow, TR: TO 21M-LGM30G-2-1-X				
7.3. Civil Engineering Manuals (CEMs), TR: AFGSCI 32-1005				
7.3.1. Description			A	
7.3.2. Use CEMs	3		3c	
7.3.3. Initiate CEM improvement report				1b

TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	Core/Cert ^	Deployment * / SEI + CBRN ~	PROFICIENCY CODES	
			3 LEVEL COURSE	5 LEVEL CDC
<b>8 SAFETY</b>				
8.1. Hazards of AFSC, TR: TO 21M-LGM30G-2-10, AFMAN 91-203			B	
8.2. Inspect personal safety equipment, TR: TOs 00-25-245, AFMAN 91-203, Applicable Manufacturer's Instructions	5		2b	
8.3. Use emergency breathing apparatus , TR: TOs 14S5-18-1, 14S5-30-2, Applicable Manufacturers Operation and Service Instructions				
8.4. Hazardous Communication (HAZCOM), TR: 29 CFR Part 1910.1200, DoDI 6050.05, AFI 90-821			A	
8.5. USAF Mishap Prevention Program, TR: AFI 91-202			A	
<b>9 NUCLEAR WEAPONS SURETY</b>				
9.1. Nuclear Surety, TR: AFI 91-101, 91-114, AFMAN 91-221				
9.1.1. Nuclear Surety Program			A	
9.1.2. Two Person Concept			A	
9.1.3. Weapon System Safety Rules			A	
9.1.4. Nuclear deficiency reports			A	
9.1.5. Report nuclear surety deficiencies (DULL SWORD)				
9.2. Nuclear Certified Equipment (NCE), TR: AFI 63-125, AFI 63-125_AFGSCSUP				
9.2.1. Description/Positive Identification/Restrictions				B
9.2.2. Perform nuclear certification verification using MNCL				b
<b>10 MAINTENANCE DATA DOCUMENTATION (MDD)</b>				
10.1. Purpose & Description, TR: TO 00-20-2			A	B
10.2. Use work unit code manuals, TR: TOs 21M-LGM30F-06-1, 21M-LGM30F-06-3, 21M-LGM30F-06-4, 21M-LGM30F-06-5, CEM 21-SM80-06	7		2b	
10.3. Complete AFTO 350 Tags , TR: TO 00-20-2	5		2b	
10.4. Complete DD Form 1500 Series Tags, TR: TO 00-20-3	5		2b	
10.5. AFTO Form 244/245, Industrial Support Equipment Record , TR: TO 00-20-1				
10.6. Evaluate MDC tags, TR: TOs 00-20-1, 00-20-2				
10.7. Use alternate MDD forms & methods, TR: TO 00-20-2				
10.8. Integrated Maintenance Data System (IMDS), TR: IMDS User's Guide, TO 00-20-2				
10.8.1. Description			A	
10.8.2. Use IMDS	5			
10.8.3. Perform supervisory data review	7			
10.9. Deficiency Reports , TR: T.O. 00-35D-54				
10.9.1. Description				B
10.9.2. Initiate deficiency report	7			
10.10. Maintenance/Engineering Technical Assistance (MAR/TAR) Request, TR: TO 00-25-107				
10.10.1. Description				B
10.10.2. Submit MAR/TAR	7			
<b>11 MATERIEL MANAGEMENT AND SUPPLY DISCIPLINE</b>				
11.1. Supply System Description, TR: AFMAN 23-122, AFH23-123			B	
11.2. Use illustrated parts breakdown (IPB), TR: TOs 21M-LGM30G-4-2, 21M-LGM30G-4-4	5		2b	
11.3. Complete AF Form 2005 , TR: AFH23-123V2PT1	5		-	1b

TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	Core/Cert ^	Deployment * / SEI + CBRN ~	PROFICIENCY CODES	
			3 LEVEL COURSE	5 LEVEL CDC
11.4. Complete DD Form 1348-6 , TR: AFH23-123V2PT1	5		-	b
11.5. Supply stock (bench, shop, operating stock) description, TR: AFI 23-101			A	B
11.6. Manage supply stock (bench, shop, operating stocks); , TR: AFI 23-101			b	
<b>12 TOOLS AND EQUIPMENT</b>				
<b>12.1. Tools</b>				
12.1.1. Tool program description, TR: AFMAN 21-200, AFI 21-101			B	
12.1.2. Manage tools, TR: AFMAN 21-200, AFI 21-101	5		2b	
12.1.3. Use tools, TR: T.O. 32-1-101	3		3c	
12.1.4. Use torque wrenches, TR: T.O. 32B14-3-1-101	3		3c	
<b>12.2. Test Equipment</b>				
12.2.1 Use digital multimeters, TR: TOs 33A1-12-1198-1, 33A1-12-1199-1, Applicable Manufacturer's Instructions	3		3c	
12.2.2. Use oscilloscopes, TR: TO 33A1-13 Series, Applicable Manufacturer's Instructions				
12.2.3. Use power supplies, TR: Applicable Manufacturers Operation and Service Instructions				
12.2.4. Use megohmmeters, TR: TO 33A1-4-35-1, 33A1-12-1212, Applicable Manufacturers Instructions				
12.2.5. Use ammeters, TR: Applicable Manufacturers Operation and Service Instructions	3		3c	
12.2.6. Use earth ground tester, TR: TO 33A1-12-687-1, 33A1-12-310-1, CEM 21-SM80X-2-21-X				
12.2.7. Use milliohm meter/bonding meter, TR: TO 33A1-12-1124-1F, Applicable manufacturer's instructions				
12.2.8. Use test set semiconductor device, TR: CEM 21-SM80X-2-21-X,	3		3c	
12.2.9. Use surge protector test set, TR: Bourns Model 4010-01 or Bourns Model 4030-01 Owner's Manual				
12.2.10. Use FLIR thermal imager, TR: TO 21M-LGM30G-2-7-9				
12.2.11. Use ECS test equipment, TR: TO 21M-LGM30G-2-7-X and Applicable Manufacturers Instructions			2b	
<b>12.3. Portable Equipment</b>				
12.3.1. Operate portable heaters, TR: TO 35E7-2-11-21, Applicable Manufacturers Operation and Service Instructions				
12.3.2. Operate portable pumps, TR: TOs 21M-LGM30G-2-10; Applicable Manufacturers Operation and Service Instructions				
<b>13 GENERAL MAINTENANCE, TR: TOs 00-25-234, 1-1A-1, 1-1A-8, 1- 1A-14, 1-1A-15, 33D9-61-58-2, applicable owners manual</b>				
13.1. Troubleshooting theory/techniques, TR: TO 00-25-234				B
13.2. Interpret schematics/wiring diagrams, TR: CEM 21-SM80X-2-21-X, TO 21M-LGM30X-2-7-X, 21M-LGM30G-2-11	5		2b	b
13.3. Perform safety wiring, TR: TO 00-25-234				
13.4. Operate mechanical maintenance van hoist , TR: TOs 21M-LGM30G-2-10, 35D4-7-4-2, 36A12-24-3-1, 21M-LGM30F-2-17-9				
13.5. Operate PMT Van auxiliary power unit , TR: TO 36A9-8-56-1				
13.6. Operate PMT Van environmental control system , TR: TO 36A9-8-56-1				
<b>13.7. Hardness assurance, TR: T.O. 21M-LGM30G-2-31, 21M-LGM30G-2-10, AFMAN 21-202_AFGSCSUP</b>				
13.7.1. Description			A	B
13.7.2. Nuclear weapons effects & design considerations			A	
13.7.3. Hardness preservation				B
13.7.4. LF/MAF Suspension Systems description, TR: 21M-LGM30G-1-1			A	B



TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	Core/Cert ^	Deployment * / SEI + CBRN ~	PROFICIENCY CODES	
			3 LEVEL COURSE	5 LEVEL CDC
13.7.5. Ventilation safety system description (blast valves), TR: 21M-LGM30G-1-1				B
13.8. Aerospace Hardware (AN/MS), TR: TO 1-1A-8				
13.8.1. Description			A	B
13.8.2. Use aerospace hardware	3		3c	
13.9. RFI/EMI Gaskets, TR: TO 21M-LGM30F-112				
13.9.1. Inspect				2b
13.9.2. Repair				
13.10. Electrostatic Discharge (ESD) Control Procedures, TR: TO 00- 25-234				
13.10.1. Description			A	
13.10.2. Perform ESD procedures	3		3c	
13.11. Common electrical practices, TR: TO 00-25-234				
13.11.1. Crimp electrical connections	5			b
13.11.2. Use heat shrink				b
13.11.3. Replace/repair electronic parts				b
13.11.4. Repair connectors				b
13.11.5. Repair power cords and plugs	5			b
13.11.6. Perform electronic equipment visual inspection				b
13.12. Electrical wiring, TR: TO 00-25-234				
13.12.1. Description				B
13.12.2. Troubleshoot	5			b
13.12.3. Repair	5			b
13.13. Soldering, TR: TOs 1-1A-14, 1-1A-15, 31-10-7, 34W4-1-8, 34W4-1-5, 21M-LGM30G-12				
13.13.1. Perform basic soldering/desoldering procedures				
13.13.2. Silver soldering				
13.13.3. Electrical soldering				
13.14. Pressure systems maintenance, TR: TOs 00-25-223, 00-25-229, 1-1A-8, 33-1-19, 42B5-1-2, 42E1-1-1, 42E2-1-2, 44H3-1-3				
13.14.1. Flare tubing				
13.14.2. Swage tubing				
13.14.3. Replace components				
13.14.4. Replace hoses & fittings				
13.14.5. Fabricate hoses & tubing				
13.15. Refrigeration, TR: TOs , 21M-LGM30X-2-7-X; CEMs 21-SM80X-2-20-X, 35R-1-X41-X; Althouse, Turnquist and Bracciano, Modern Refrigeration and Air Conditioning, Goodheart-Willcox Company				
13.15.1. Refrigeration principles			B	B
13.15.2. Refrigeration systems components and control/monitoring devices			B	B
13.15.3. Heat transfer process in environmental control systems			B	B
13.15.4. ECS communication systems			A	B
13.15.5. Refrigerant certification (Note: Type I and Type II certification required), TR: 1990 CAA Amendments, Section 608 (40 CFR Part 82)			C	

TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	Core/Cert ^	Deployment * / SEI + CBRN ~	PROFICIENCY CODES	
			3 LEVEL COURSE	5 LEVEL CDC
13.16. Power Generation and Distribution/Internal Combustion Engines, TR: AFIs 32-1062; TO 21M-LGM30X-2-11; CEMs 21- SM80X-2-21-X, 21-SM80X-2-26- X, 21-SM80-6 (Vol XX), 35R-1- X51-X, 35R-1-X81-X; National Electric Code; Andrew Norman, John Corinchock, Robert Scharff, Diesel Technology: Fundamentals, Service, and Repair, Goodheart-Willcox Company, Inc.				
13.16.1. Principles			B	B
13.16.2. Components and control/monitoring devices			B	B
<b>14 MISSILE ELECTRONIC FUNDAMENTALS, TR: T.O. 31-1-141-15</b>				
14.1. Electromagnetic effects			B	
14.2. Electrical prefixes			B	
14.3. Direct current theory			B	
14.4. Alternating current theory			B	
14.5. Basic Circuit Components				
14.5.1. Troubleshoot fuses	5		2b	
14.5.2. Inductor description and operation			B	
14.5.3. Resistors				
14.5.3.1. Description and operation			B	
14.5.3.2. Troubleshoot	5		2b	
14.5.4. Capacitors/ Power Filters				
14.5.4.1. Description and operation			B	
14.5.4.2. Discharging				
14.6. Electromagnetic Devices				
14.6.1. Transducer theory				A
14.6.2. Synchro/servo theory				A
14.6.3. Transformers				
14.6.3.1. Description and operation			B	
14.6.3.2. Troubleshoot	5			
14.6.4. Relays and Solenoids				
14.6.4.1. Description and operation			B	
14.6.4.2. Troubleshoot	5		2b	
14.6.5. Motor Theory				
14.6.5.1. DC			A	
14.6.5.2. AC			A	
14.6.6. Generator Theory				
14.6.6.1. DC			A	
14.6.6.2. AC			A	
14.7. Solid State Devices				
14.7.1. Diodes				
14.7.1.1. Description and operation			B	
14.7.1.2. Troubleshoot	3		3c	
14.7.2. Bipolar Junction Transistors				

TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	Core/Cert ^	Deployment * / SEI + CBRN ~	PROFICIENCY CODES	
			3 LEVEL COURSE	5 LEVEL CDC
14.7.2.1. Description and operation			B	
14.7.2.2. Troubleshoot				
14.8. Power Supply Circuits				
14.8.1. Rectifier description and operation			A	B
14.8.2. Voltage regulators description and operation			A	B
14.8.3. Troubleshoot power supplies	5		2b	
<b>15 ICBM WEAPON SYSTEM DESCRIPTION, TR: TOs 21M-LGM30G-1-1, 21M-LGM30G-2-1-X, 21M-LGM30G-2-10</b>				
15.1. Nuclear weapon theory and components			A	
15.2. Missile			A	B
15.3. Launch facility			A	B
15.4. Missile alert facility			A	B
15.5. Missile support base			A	B
<b>16 TEST AND EVALUATION, TR: AFI 99-103, AFGSCI 99-102</b>				
16.1. Operational Test Launch Description				A
16.2. Hardness Surveillance Evaluation Program (HSEP) description				A
16.3. Simulated Electronic Launch Minuteman (SELM) TR: TO 21M-LGM30G-1-17				
16.3.1. Description				A
16.3.2. Enter LER, TR: TO 21M-LGM30G-1-X				
16.3.3. Exit LER, TR: TO 21M LGM30G-1-X				
<b>17 LAUNCH FACILITY PROCEDURES</b>				
<b>17.1. Launch Facility, TR: TOs 21M-LGM30G-1-1, 21M-LGM30G-2 10, 21M-LGM30G-2-7-X, 21M-LGM30G-2-17-9</b>				
17.1.1. Enter			1a	
17.1.2. Exit			1a	
17.2. Raise and lower equipment			2b	
17.3. Inspect launch facility, TR: Applicable checklist				
<b>17.4. Launcher Support Building (LSB), TR: TOs 21M-LGM30G-1-1, 21M-LGM30G-2 10, 21M-LGM30G-2-7-X, 21M-LGM30G-2-17-9</b>				
17.4.1. Enter			1a	
17.4.2. Exit			1a	
17.4.3. Perform LSB emergency electrical isolation				
<b>17.5. Launcher Equipment Room (LER), TR: TOs 21M-LGM30G-1-1, 21M-LGM30G-2 10, 21M-LGM30G-2-7-X, 21M-LGM30G-2-17-9</b>				
17.5.1. Enter			1a	
17.5.2. Exit			1a	
17.5.3. Use gas monitor to identify LEL			1a	
17.5.4. Use gas monitor to detect PSRE leak				
17.5.5. Perform contaminated atmosphere purge				
17.5.6. Perform LER electronic rack power removal procedures				
17.5.7. Perform LER emergency shutdown				
17.5.8. Evacuate LF for EWO Launch				

TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	Core/Cert ^	Deployment * / SEI + CBRN ~	PROFICIENCY CODES	
			3 LEVEL COURSE	5 LEVEL CDC
17.5.9. Perform hostile LF securing				
17.5.10. Respond to loss of ESS power				
17.5.11. Power ESS with portable generator				
17.5.12. Install and remove LER platform set				
17.5.13. Operate Maintenance and Security Alarm Monitor II , TR: T.O. 21M-LGM30G-2-35, MASAM Operation Procedures; TOs 21M-LGM30G-2-10; Applicable Manufacturers Operation and Service Instructions				
17.6. Launch Tube				
17.6.1. Enter				
17.6.2. Exit				
17.6.3. Perform periodic inspection of launch tube access system, TR: CEMs 21-SM80X-2-26-X, 21-SM80-6 (Vol XX), 35R-1-X81-X				
17.7. Guided Missile Maintenance Platform (GMMP), TR: 21M-LGM30G-2-10, 35A4-4-9-1				
17.7.1. Install and remove				
17.7.2. Operate in launch tube				
17.7.3. Emergency extraction procedures				
17.8. Power and communications distribution box (GMMP), TR: TOs 21M-LGM30X-2-11, 35A4-4-9-1				
17.8.1 Troubleshoot				
17.8.2. Repair				
17.8.3. Replace				
<b>18 LAUNCH FACILITY MAINTENANCE</b>				
18.1. LF Power Generation System, TR: AFI 32-1062; AFGSCI 32-1005; CEMs 21-SM80X-2-21-X, 21-SM80X-2-21-X, 21-SM80X-2-26-X, 21-SM80-6 (Vol XX), 35R-1-X51-X, 35R-1-X81-X				
18.1.1. Power distribution system function and operation			B	B
18.1.2. Replace DEU				
18.1.3. Engine fuel oil system				
18.1.3.1. Function and operation			B	B
18.1.3.2. Perform periodic inspection			1a	
18.1.3.3. Service				
18.1.3.4. Troubleshoot				
18.1.3.5. Repair				
18.1.4. Engine governor/injection pump/injectors				
18.1.4.1. Function and operation			B	B
18.1.4.2. Perform periodic inspection				
18.1.4.3. Troubleshoot				
18.1.4.4. Replace				
18.1.5. Engine lube oil system				
18.1.5.1. Function and operation			B	B
18.1.5.2. Perform periodic inspection			2b	
18.1.5.3. Troubleshoot				

TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	Core/Cert ^	Deployment * / SEI + CBRN ~	PROFICIENCY CODES	
			3 LEVEL COURSE	5 LEVEL CDC
18.1.5.4. Repair				
18.1.6. Engine cooling system				
18.1.6.1. Function and operation			B	B
18.1.6.2. Perform periodic inspection				
18.1.6.3. Troubleshoot				
18.1.6.4. Repair				
18.1.7. Engine safety/alarm devices				
18.1.7.1. Function and operation			B	B
18.1.7.2. Perform periodic inspection			2b	
18.1.7.3. Troubleshoot				
18.1.7.4. Repair				
18.1.8. Engine intake/exhaust system				
18.1.8.1. Function and operation			B	B
18.1.8.2. Perform periodic inspection				
18.1.8.3. Troubleshoot				
18.1.8.4. Repair				
18.1.9. DEU battery charging system				
18.1.9.1. Function and operation			B	B
18.1.9.2. Perform periodic inspection				
18.1.9.3. Troubleshoot				
18.1.9.4. Repair				
18.1.10. DEU start batteries				
18.1.10.1. Function and operation			B	B
18.1.10.2. Perform periodic inspection				
18.1.10.3. Troubleshoot				
18.1.10.4. Replace				
18.1.11. Engine starting/stopping devices				
18.1.11.1. Function and operation			B	B
18.1.11.2. Remote start unit (RSU) checkout				
18.1.11.3. Troubleshoot				
18.1.11.4. Repair				
18.1.12. Engine cranking/alarm panel				
18.1.12.1. Perform periodic inspection				
18.1.12.2. Troubleshoot				
18.1.12.3. Repair				
18.1.13. Engine/generator control panel				
18.1.13.1. Function and operation			B	B
18.1.13.2. Perform periodic inspection				
18.1.13.3. Troubleshoot				

TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	Core/Cert ^	Deployment * / SEI + CBRN ~	PROFICIENCY CODES	
			3 LEVEL COURSE	5 LEVEL CDC
18.1.13.4. Repair				
18.1.14. Immersion heater				
18.1.14.1. Troubleshoot				
18.1.14.2. Repair				
18.1.15. Diesel vibration dampers/snubbers				
18.1.15.1. Perform periodic inspection				
18.1.15.2. Replace				
18.1.16. Generator/exciter/voltage regulator				
18.1.16.1. Function and operation			B	B
18.1.16.2. Perform periodic inspection				
18.1.16.3. Troubleshoot				
18.1.16.4. Repair				
18.1.17. Automatic switching unit				
18.1.17.1. Function and operation			B	B
18.1.17.2. Perform periodic inspection				
18.1.17.3. Troubleshoot			2b	
18.1.17.4. Repair				
18.1.18. Automatic transfer switches/switch gear				
18.1.18.1. Function and operation			B	B
18.1.18.2. Perform periodic inspection				
18.1.18.3. Troubleshoot			2b	
18.1.18.4. Repair				
18.1.19. Minuteman Power Processor				
18.1.19.1. Function and operation			B	B
18.1.19.2. Replace			2b	
18.1.20. Minuteman Power Processor battery/charger				
18.1.20.1. Function and operation			B	
18.1.20.2. Perform periodic inspection				
18.1.20.3. Troubleshoot				
18.1.20.4. Repair				
18.1.21. Site light system, TR: 21-SM80X-2-21-X, 35R-1-X51-X				
18.1.21.1. Troubleshoot				
18.1.21.2. Repair				
18.2. LF Environmental Control System, TR: TOs 21M-LGM30F-6WC-1, 21M-LGM30X-2-7-X, CEM 21-SM80X-2-20-X				
18.2.1. Function and operation			B	B
18.2.2. LSB heating subsystem				
18.2.2.1. Function and operation			B	B
18.2.2.2. Troubleshoot				
18.2.2.3. Repair				

TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	Core/Cert ^	Deployment * / SEI + CBRN ~	PROFICIENCY CODES	
			3 LEVEL COURSE	5 LEVEL CDC
18.2.3. Heating and ventilation/circulating air subsystem/controls/alarms				
18.2.3.1. Function and operation			B	B
18.2.3.2. Perform periodic inspection			2b	
18.2.3.3. Troubleshoot			2b	
18.2.3.4. Repair				
18.2.4. Refrigerant subsystem				
18.2.4.1. Function and operation			B	B
18.2.4.2. Perform periodic inspection			2b	
18.2.4.3. Troubleshoot				
18.2.4.4. Repair				
18.2.5. Brine subsystem				
18.2.5.1. Function and operation			B	B
18.2.5.2. Perform periodic inspection			2b	
18.2.5.3. Troubleshoot				
18.2.5.4. Repair				
18.2.6. Replace brine chiller unit				
18.2.7. Brine chiller control panel				
18.2.7.1. Function and operation			B	B
18.2.7.2. Perform periodic inspection			2b	
18.2.7.3. Troubleshoot				
18.2.7.4. Repair				
18.2.8. Air Handler subsystem/controls/alarms				
18.2.8.1. Function and operation			B	B
18.2.8.2. Perform periodic inspection			2b	
18.2.8.3. Troubleshoot			2b	
18.2.8.4. Repair				
18.2.9. Balance air flow				
18.2.10. Emergency air handler subsystem/controls/alarms				
18.2.10.1. Function and operation			B	B
18.2.10.2. Perform periodic inspection			2b	
18.2.10.3. Troubleshoot			2b	
18.2.10.4. Repair				
18.2.11. Launch tube heating subsystem/controls/alarms				
18.2.11.1. Function and operation			B	B
18.2.11.2. Perform periodic inspection			2b	
18.2.11.3. Troubleshoot				
18.2.11.4. Repair				
18.2.12. ECS Remote Monitoring System (ERMS), TR: 21M-LGM30G-2-7-8				
18.2.12.1. Function and operation			A	B

TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	Core/Cert ^	Deployment * / SEI + CBRN ~	PROFICIENCY CODES	
			3 LEVEL COURSE	5 LEVEL CDC
18.2.12.2. Perform periodic inspection				
18.2.12.3. Troubleshoot				
18.2.12.4. Repair				
18.2.13. Make up Air Subsystem, TR: TOs 21M-LGM30G-2-7-X, 33D9-61-84-11, 21M-LGM30G-2-10, 21M-LGM30F-6WC-1				
18.2.13.1. Function and operation			B	B
18.2.13.2. Perform periodic inspection				
18.2.13.3. Troubleshoot				
18.2.13.4. Repair				
18.2.14. Combustible Gas Detector, TR: TOs 21M-LGM30G-2-7-X, 33D9-61-84-11, 21M-LGM30G-2-10, 21M-LGM30F-6WC-1				
18.2.14.1. Function and operation			B	B
18.2.14.2. Perform periodic inspection				
18.2.14.3. Troubleshoot				
18.2.14.4. Repair				
18.3. LF Waste disposal system, TR; CEMs 21-SM80X-2-24-X, 21-SM80X-2-26-X, 21-SM80-6 (Vol XX), 35R-1-X61-X, 35R-1-X81-X				
18.3.1. Function and operation			A	B
18.3.2. Sump pump 102				
18.3.2.1. Function and operation			A	B
18.3.2.2. Perform periodic inspection				
18.3.2.3. Perform special periodic inspection				
18.3.2.4. Troubleshoot				b
18.3.2.5. Repair				
18.3.3. Sump pump 103				
18.3.3.1 Perform periodic inspection				
18.3.3.2. Troubleshoot				
18.3.3.3. Repair				
18.3.4. Sump pump 104 (Wings 1 and 3)				
18.3.4.1. Perform periodic inspection				
18.3.4.2. Troubleshoot				
18.3.4.3. Repair				
18.3.5. Heat cable, TR: CEMs 21-SM80X-2-20-X, 35R-1-X41-X				
18.3.5.1. Perform periodic inspection				
18.3.5.2. Troubleshoot				
18.3.5.3. Repair				
18.4. LF Miscellaneous				
18.4.1. Personnel access/security system, TR: TOs 21M-LGM30F-2-19, 21M-LGM30F-6WC-1, 21M-LGM30G-2-10, 21M-LGM30G-2-28, 35M1-9-2-2				
18.4.1.1. Perform periodic inspection				
18.4.1.2. Perform HDLA periodic inspection				
18.4.1.3. Replace HDLA				



TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	Core/Cert ^	Deployment * / SEI + CBRN ~	PROFICIENCY CODES	
			3 LEVEL COURSE	5 LEVEL CDC
18.4.1.4. Perform security pit electrical test				
18.4.1.5. Change secondary door lock combination				
18.4.2. Shock isolation system, TR: TOs 21M-LGM30F-6WC-1, 21M-LGM30G-2-28				
18.4.2.1. Perform periodic inspection				
18.4.3. Electronic fuel tank monitor system, TR: CEMs 21-SM80X-2-26-X, 21-SM80-6 (Vol XX), 35R-1-X81-X				
18.4.3.1. Perform periodic inspection				
18.4.3.2. Troubleshoot				
18.4.3.3. Repair				
18.4.4. Electrical power distribution system, TR: TO 21M-LGM30F-6WC-1, 21M-LGM30G-2-11, CEM 21-SM80-6 (Vol XX)				
18.4.4.1. Perform periodic inspection of motor generator set				
18.4.4.2. Emergency storage battery function and operation				B
18.4.4.3. Perform inspection of emergency storage battery set				
18.4.5. Electrical power filters, TR: TOs 21M-LGM30X-2-11, 21M-LGM30X-2-21-X; CEMs 21-SM80X-2-21-X, 35R-1-X51-X; 21-SM80F-2-20-1, 35R-1-641-1				
18.4.5.1. Perform periodic inspection				
18.4.5.2. Troubleshoot				
18.4.5.3. Repair				
18.4.6. Earth ground and grounding systems, TR: AFMAN 32-1065; TOs 33A1-12-310-1, 33A1-12-687-1; CEMs 21-SM80X-2-21-X, 35R-1-X51-X				
18.4.6.1. Perform periodic inspection				
18.4.6.2. Repair miscellaneous hardware				
18.4.7. Buck boost transformer, TR: 21-SM80X-2-21-X, 35R-1-X51-X				
18.4.7.1. Troubleshoot				
18.4.7.2. Repair				
18.4.8. LSB/LER junction boxes/distribution panels, TR: TOs 21M-LGM30X-2-11; CEMs 21-SM80X-2-21-X, 35R-1-X51-X				
18.4.8.1. Perform periodic inspection				
18.4.8.2. Troubleshoot				
18.4.8.3. Repair				
18.4.9. Source Region Electromagnetic Pulse (SREMP) ESA, TR: CEMs 21 SM80X 2 21 X, 35R 1 X51 X				
18.4.9.1. Function and operation			B	
18.4.9.2. Perform periodic inspection				
18.4.9.3. Troubleshoot				
18.4.9.4. Repair				
<b>19 MISSILE ALERT FACILITY MAINTENANCE</b>				
19.1. LCEB/MAFSB power generation system, TR: AFMAN 32-1062; AFGSCI 32-1005; CEMs 21-SM80X-2-21-X, 21-SM80X-2-26-X, 21-SM80-6 (Vol XX), 35R-1-X51-X, 35R-1-X81-X, MCL 0555				
19.1.1. Power distribution system function and operation			B	B
19.1.2. Replace diesel electric unit				
19.1.3. Engine fuel oil system				
19.1.3.1 Perform periodic inspection				

TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	Core/Cert ^	Deployment * / SEI + CBRN ~	PROFICIENCY CODES	
			3 LEVEL COURSE	5 LEVEL CDC
19.1.3.2 Troubleshoot				
19.1.3.3. Repair				
19.1.4. Engine lube oil system				
19.1.4.1. Perform periodic inspection				
19.1.4.2. Troubleshoot				
19.1.4.3. Repair				
19.1.5. Engine cooling system				
19.1.5.1. Perform periodic inspection				
19.1.5.2. Troubleshoot				
19.1.5.3. Repair				
19.1.6. Engine governor/injection pump/injectors				
19.1.6.1. Perform periodic inspection				
19.1.6.2. Troubleshoot				
19.1.6.3. Repair				
19.1.7. Generator/exciter/voltage regulator				
19.1.7.1. Perform periodic inspection				
19.1.7.2. Troubleshoot				
19.1.7.3. Repair				
19.1.8. Engine starting/stopping devices				
19.1.8.1. Troubleshoot				
19.1.8.2. Repair				
19.1.9. Diesel battery charger				
19.1.9.1. Perform periodic inspection				
19.1.9.2. Troubleshoot				
19.1.9.3. Repair				
19.1.10. Starting batteries				
19.1.10.1. Perform periodic inspection				
19.1.10.2. Troubleshoot				
19.1.10.3. Replace				
19.1.11. Engine cranking/alarm panel				
19.1.11.1 Perform periodic inspection				
19.1.11.2. Troubleshoot				
19.1.11.3. Repair				
19.1.12. Engine/generator control panel				
19.1.12.1. Perform periodic inspection				
19.1.12.2. Troubleshoot				
19.1.12.3. Repair				
19.1.13. Engine safety/alarm devices				
19.1.13.1. Perform periodic inspection				

TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	Core/Cert ^	Deployment * / SEI + CBRN ~	PROFICIENCY CODES	
			3 LEVEL COURSE	5 LEVEL CDC
19.1.13.2. Troubleshoot				
19.1.13.3. Repair				
19.1.14. Engine intake/exhaust system				
19.1.14.1. Perform periodic inspection				
19.1.14.2. Troubleshoot				
19.1.14.3. Repair				
19.1.15. Immersion heater				
19.1.15.1. Troubleshoot				
19.1.15.2. Repair				
19.1.16. Automatic switching unit				
19.1.16.1. Perform periodic inspection				
19.1.16.2. Troubleshoot				
19.1.16.3. Repair				
19.1.16.4. Replace Minuteman Power Processor				
19.1.17. Automatic/manual transfer switches/switch gear				
19.1.17.1. Perform periodic inspection				
19.1.17.2. Troubleshoot				
19.1.17.3 Repair				
19.1.18. MPP Battery/charger				
19.1.18.1 Perform periodic inspection				
19.1.18.2. Troubleshoot				
19.1.18.3. Repair				
19.1.19. Diesel vibration dampers/snubbers				
19.1.19.1. Perform periodic inspection				
19.1.19.2. Replace				
19.2. MAF Environmental control system., TR: TOs 21M-LGM30F-6WC-2, 21M-LGM30X-2-7-X				
19.2.1. Function and operation			B	B
19.2.2. Brine subsystem				
19.2.2.1 Function and operation				B
19.2.2.2. Perform periodic inspection				
19.2.2.3. Troubleshoot				
19.2.2.4. Repair				
19.2.3. Refrigerant subsystem				
19.2.3.1. Function and operation				B
19.2.3.2. Perform periodic inspection				
19.2.3.3. Troubleshoot				
19.2.3.4. Repair				
19.2.4. Brine chiller control panel				
19.2.4.1. Function and operation				B

TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	Core/Cert ^	Deployment * / SEI + CBRN ~	PROFICIENCY CODES	
			3 LEVEL COURSE	5 LEVEL CDC
19.2.4.2. Perform periodic inspection				
19.2.4.3. Troubleshoot				
19.2.4.4. Repair				
19.2.5. Replace brine chiller unit				
19.2.6. Air handler subsystem/controls/alarms				
19.2.6.1. Function and operation				B
19.2.6.2. Perform periodic inspection				
19.2.6.3. Troubleshoot				
19.2.6.4. Repair				
19.2.7. Balance air flow				
19.2.8. Ventilation air subsystem/controls/alarms				
19.2.8.1. Function and operation				B
19.2.8.2. Perform periodic inspection				
19.2.8.3. Troubleshoot				
19.2.8.4. Repair				
19.2.9. Emergency air handler subsystem/controls/alarms				
19.2.9.1 Function and operation				B
19.2.9.2. Perform periodic inspection				
19.2.9.3. Troubleshoot				
19.2.9.4. Repair				
19.2.10. Refrigerator, TR: CEMs 21-SM80X-2-26-X, 21-SM80-6 (Vol XX), 35R-1-X81-X				
19.2.10.1. Perform periodic inspection				
19.2.10.2. Remove				
19.2.10.3. Replace				
19.2.11. Oxygen regeneration unit				
19.2.11.1. Function and operation				B
19.2.11.2. Perform periodic inspection				
19.2.11.3. Repair				
19.2.12. LCC Humidifier				
19.2.12.1. Perform periodic inspection				
19.2.12.2. Troubleshoot				
19.2.12.3. Repair				
19.3. MAF Miscellaneous				
19.3.1. LCC/LCEB/MAFSB junction boxes/distribution panels, TR: TO 21M-LGM30G-2-11; CEMs 21-SM80X-2-21-X, 35R-1-X51-X				
19.3.1.1. Perform periodic inspection				
19.3.1.2. Troubleshoot				
19.3.1.3. Repair				
19.3.2. Source Region Electromagnetic Pulse (SREMP) ESA, TR: CEMs 21-SM80X-2-21-X, 35R-1-X51-X				
19.3.2.1. Perform periodic inspection				

TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	Core/Cert ^	Deployment * / SEI + CBRN ~	PROFICIENCY CODES	
			3 LEVEL COURSE	5 LEVEL CDC
19.3.2.2. Troubleshoot				
19.3.2.3. Repair				
19.3.3. Electrical power filters, TR: TO 21M-LGM30G-2-11, CEMs 21-SM80X-2-21-X, 35R-1-X51 -X, 21-SM80F-2-20- 1, 21-SM80-6 (Vol VII), 35R-1-641-1				
19.3.3.1 Perform periodic inspection				
19.3.3.2 Troubleshoot				
19.3.3.3. Repair				
19.3.4. Earth ground and grounding system, TR: AFI 32-1065; TOs 33A1-12-310-1, 33A1-12-687-1; CEMs 21-SM80X-2-21-X, 35R-1-X51-X				
19.3.4.1. Perform periodic inspection				
19.3.4.2. Repair miscellaneous hardware				
19.3.5. Buck boost transformer, TR: CEMs 21-SM80X-2-21-X, 35R-1-X51-X				
19.3.5.1. Troubleshoot				
19.3.5.2. Repair				
19.3.6. LCC lighting, emergency/survival, TR: TO 21M-LGM30F-6WC-2, 21M-LGM30X-2-11				
19.3.6.1. Perform periodic inspection				
19.3.6.2. Troubleshoot				
19.3.6.3. Repair				
<b>20 HARDENED INTERSITE CABLE SYSTEM (HICS), TR: 21M-LGM30F-2-20-1</b>				
20.1. Function and Operation			A	B
20.2. Cable/Conductor Identification				
20.2.1. Cable/conductor classifications				B
20.2.2. Wire color coding standards				B
20.2.3. Cable composition				
20.2.4. Conductor identification				
20.3. Buried Cable Systems, TR: TOs 31W3-10-12, 31W3-10-13, 21M-LGM30F-2-20-1				
20.3.1. Locate existing buried cables using test equipment				
20.3.2. Install marker post				
20.3.3. Set up cable for cable splicing				
20.3.4. Perform HICS excavation/backfill operations				
20.3.5. Prepare splice pit and trench for HICS cable				
20.3.6. Backfill splice pits and trenches				
20.3.7. Set up ground tent				
20.4. Cable Maintenance/Installation, TR: TO 21M-LGM30F-2-20-1 TOs 31-1-141-1, 33A1-12-1300-1, 33A1-12-155-1, 33A1-12-310-1				
20.4.1. Inspect				
20.4.2. Troubleshoot				
20.4.3. Repair				b
20.5. Cable Splicing, TR: TOs 21M-LGM30F-2-20-1, 31W3-10 Series, 31-10 Series				
20.5.1. Splice HICS cable				b
20.5.2. Clear cap conductors				

TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	Core/Cert ^	Deployment * / SEI + CBRN ~	PROFICIENCY CODES	
			3 LEVEL COURSE	5 LEVEL CDC
20.5.3. Prepare a HICS cable section/link cable				
20.5.4. Prepare a HICS in service/out of service cable replacement				
20.5.5. Splice in load coils				
20.5.6. Splice in capacitors				
20.5.7. Splice in pressure transmitter				
20.5.8. Install temporary bonds				
20.6. Cable Sealing, TR: TOs 31W3-10-12, 21M-LGM30F-2-20-1				
20.6.1. Maintain HICS Grounding and Sealing devices				b
20.6.2. Seal cable ends				
20.6.3. Install temporary seals on a splice opening				
20.6.4. Repair/replace HICS terminal splice cases				
20.6.5. Repair/replace HICS installed splice cases				
20.6.6. Repair damaged HICS cable sheath				
20.6.7. Maintain HICS termination equipment				
20.7. Interior Sealing Device, TR: TO 21M-LGM30F-2-20-1				
20.7.1. Install				
20.7.2. Repair				
20.8. Equipment Grounds, TR: TO 21M-LGM30F-2-20-1				
20.8.1. Install equipment grounds				
20.8.2. Remove equipment grounds				
20.8.3. Inspect				
20.8.4. Troubleshoot				
20.8.5. Repair				
20.9. Electrical Surge Arrestor (ESA)/High Energy Spark Gaps, TR: TO 21M-LGM30F-2-20-1				
20.9.1. Checkout				
20.9.2. Repair				
20.10. Common Maintenance Practices, TR: TOs 21M-LGM30F-2-20, 31W3-10-12, 31W3-10-21, 36A11-18-11-1				
20.10.1. Position Cable Reel				
20.10.1.1. Buried construction				
20.10.1.2. Cable reel jacks				
20.10.2. Maintain cable yard				
20.11. HICS Pressure/Pressure Monitoring System, TR: TOs 21M-LGM30F-2-20-1, 21M-LGM30F-2-5-8, 31W3-10-16, 34Y41-19-1, 34Y41-21-1				
20.11.1. Cable Pressure System, TR: TOs 21M-LGM30F-2-20-1, 21M-LGM30F-2-5-8, AFCA CEMI 350-18, 34Y41-21-1				
20.11.1.1. Inspect				
20.11.1.2. Troubleshoot				
20.11.1.3. Repair				
20.12. Install temporary pressure source				
20.13. Cable Air Dryer				

TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	Core/Cert ^	Deployment * / SEI + CBRN ~	PROFICIENCY CODES	
			3 LEVEL COURSE	5 LEVEL CDC
20.13.1. Inspect				b
20.13.2. Troubleshoot				
20.13.3. Repair				
20.14. Demi-Valve Assembly				
20.14.1. Inspect				
20.14.2. Troubleshoot				
20.14.3. Repair				
20.15. Pressure Transmitter				
20.15.1. Checkout				
20.15.2. Troubleshoot				
20.15.3. Repair				
20.16. Pressure Monitor Receiver Transmitter (PMRT)				
20.16.1. Operate				
20.16.2. Troubleshoot				
20.16.3. Repair				
20.16.4. Perform PMRT program loading and recording				
20.17. HICS Data Management, TR: TO 21M-LGM30F-2-20-1, AFMAN 21-202				
20.17.1. Maintain, update, track project files				
20.17.2. Manage surveillance program for HICS Right Of Way (ROW)				
20.17.3. Document inspection results for HICS ROW surveillance program				
20.17.4. Process HICS ROW project/repair funding MAJCOM request				
20.17.5. Maintain land owner/non USAF agency database/ mailing list				
20.17.6. Maintain HICS circuit identification and recording system (CIRS)				
20.17.7. Identify and interpret circuit records				
20.18. HICS ROW Records Maintenance, TR: AFMAN 21-202				
20.18.1. Identify HICS easement/route for activities on the HICS ROW				
20.18.2. Monitor and inspect crossings/construction activities on the HICS ROW				
20.18.3. Perform site survey and determine required actions				
20.18.4. Inspect completed repair actions				
20.19. HICS Test Equipment, TR: Applicable Manufacturer's Operation and Service Instructions				
20.19.1. Use optical time domain reflectometer				b
20.19.2. Use splicers headset				b
20.20. Operator Maintenance on Special Purpose Vehicles and Accessories:				
20.20.1. Backhoe				
20.20.2. ATV				
20.20.3. Cable reel trailer				
20.21. Auxiliary Equipment, TR: Applicable Manufacturer's Operation and Service Instructions				
20.21.1. Utilize portable water pumps				
20.21.2. Utilize portable generators				

TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	Core/Cert ^	Deployment * / SEI + CBRN ~	PROFICIENCY CODES	
			3 LEVEL COURSE	5 LEVEL CDC
20.21.3. Utilize portable heaters				
<b>21 PREL MAINTENANCE</b>				
21.1. Brine solution/antifreeze, TR: TO 21M-LGM30X-2-7-X; CEM 21-SM80X-2-21-X				
21.1.1. Description				B
21.1.2. Prepare premix				
21.2. Chromate dioxin solution, TR: TO 35E9-35-22				
21.2.1. Description				B
21.2.2. Prepare chromate dioxin solution				
21.3. LF/MAF Emergency storage battery reconditioning, TR: TO 35M1-1-101				
21.3.1. Description				B
21.3.2. Charge				
21.3.3. Discharge				
21.3.4. Repair				
21.3.5. Inspect				
21.4. Emergency storage battery charger (AAR36AC75F3, 15CRF036 075), TR: TO 35M1-1-101				
21.4.1. Operate				
21.4.2. Troubleshoot				
21.4.3. Repair				
21.5. Refrigerant reclaim system, TR: Applicable Manufacturers Operation and Service Instructions				
21.5.1. Operate				
21.5.2. Service				
21.5.3. Repair				
21.6. Transporter erector, TR: TOs 35C2-3-493-1, 35D3-11-52-2, 35D3-11-52-4, 35E9-266-1				
21.6.1. Function and operation			A	B
21.6.2. Electrical system				
21.6.2.1. Perform periodic inspection				b
21.6.2.2. Troubleshoot				
21.6.2.3. Repair				
21.6.2.4. Repair hand held control unit				
21.6.3. Environmental control unit				
21.6.3.1. Perform periodic inspection				b
21.6.3.2. Troubleshoot				
21.6.3.3. Repair				
21.6.4. APU				
21.6.4.1. Perform semi-annual/annual periodic inspection				
21.6.4.2. Perform triennial periodic inspection				
21.6.4.3. Troubleshoot				
21.6.4.4. Repair				
21.7. Transporter erector replacement (TERP), TR: TOs 21M-LGM30G-2-2-1, 35A2-5-36-1, 35D3-11-55--X,				



TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	Core/Cert ^	Deployment * / SEI + CBRN ~	PROFICIENCY CODES	
			3 LEVEL COURSE	5 LEVEL CDC
21.7.1. Function and operation				A
21.7.2. Electrical system (TERP)				
21.7.2.1. Perform periodic inspection				
21.7.2.2. Troubleshoot				
21.7.2.3. Repair				
21.7.2.4. Repair hand held control unit				
21.7.3. Environmental control unit (TERP)				
21.7.3.1. Perform periodic inspection				
21.7.3.2. Troubleshoot				
21.7.3.3. Repair				
21.7.4. APU (TERP)				
21.7.4.1. Perform semi annual/annual periodic inspection				
21.7.4.2. Perform triennial periodic inspection				
21.7.4.3. Troubleshoot				
21.7.4.4. Repair				
21.8. Portable air conditioner, TR: TOs 35C2 3 493 1, 35D3 11 52 2, 35E9 270 1				
21.8.1. Function and operation			A	B
21.8.2. APU/electrical system				
21.8.2.1. Perform periodic inspection				
21.8.2.2. Operate				
21.8.2.3. Troubleshoot				
21.8.2.4. Repair				
21.8.3. ECS				
21.8.3.1. Perform periodic inspection				
21.8.3.2. Troubleshoot				
21.8.3.3. Repair				
21.9. Mechanical maintenance truck (M-Van), TR: TOs 35D4-7-4-2, 36A12-24-3-1; LJG-20AF-95-001				
21.9.1. Function and operation			A	B
21.9.2. Electrical systems				
21.9.2.1. Perform periodic inspection				
21.9.2.2. Troubleshoot				
21.9.2.3. Repair				
21.9.3. Hoist				
21.9.3.1. Perform periodic inspection				
21.9.3.2. Troubleshoot				
21.9.3.3. Repair				
21.10. PMT van, TR: TOs 35C2-3-498-1, 35E9-326-1, 35E9-272-1, 36A9-8-56-1, 36Y16-25-1				
21.10.1. Function and operation			A	B
21.10.2. APU/electrical system, TR: TO 35C2-3-498-1, 35C2-2-152-1, 35C2-3-529-1, 35C2-3-530-3				

TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	Core/Cert ^	Deployment * / SEI + CBRN ~	PROFICIENCY CODES	
			3 LEVEL COURSE	5 LEVEL CDC
21.10.2.1. Perform periodic inspection				
21.10.2.2. Troubleshoot				
21.10.2.3. Repair				
21.10.3. ECS, TR: TO 35E9-272-1, 35E9-326-1				
21.10.3.1. Perform periodic inspection				
21.10.3.2. Troubleshoot				
21.10.3.3. Repair				
21.11. Payload transporter, TR: TOs 21M-LGM30F-6WC-3, 31S9-4-83-1, 36A9-8-49-1, 36A9-8-58-1, 38G1-16-161, 38G1-16-162, 38G1-55-2, 35C2-3-518-2				
21.11.1. Function and operation			A	B
21.11.2. Hoist				
21.11.2.1. Operate, TR: TOs 21M-LGM30G-2-33, 36A9-8-49-1, 36A9-8-58-1				b
21.11.2.2. Perform periodic inspection				b
21.11.2.3. Troubleshoot				
21.11.2.4. Repair				
21.11.3. APU				
21.11.3.1. Perform periodic inspection				
21.11.3.2. Troubleshoot				
21.11.3.3. Repair				
21.11.4. Electrical system				
21.11.4.1. Perform periodic inspection				
21.11.4.2. Troubleshoot				
21.11.4.3. Repair				
21.11.5. ECS				
21.11.5.1. Perform periodic inspection				b
21.11.5.2. Troubleshoot				
21.11.5.3. Repair				
21.12. Payload transporter replacement (PTR), TR: 21M-LGM30G-2-36				
21.12.1. Function and operation				A
21.12.2. PTR Hoist, TR: 21M-LGM30G-14-3-1, 21M-LGM30G-2-36				
21.12.2.1. Operate				
21.12.2.2. Perform periodic inspection				
21.12.2.3. Troubleshoot				
21.12.2.4. Repair				
21.12.3. PTR APU, TR: 21M-LGM30G-2-36				
21.12.3.1. Perform periodic inspection				
21.12.3.2. Troubleshoot				
21.12.3.3. Repair				
21.12.4. PTR Electrical system, TR: 21M-LGM30G-2-36				
21.12.4.1. Perform periodic inspection				

TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	Core/Cert ^	Deployment * / SEI + CBRN ~	PROFICIENCY CODES	
			3 LEVEL COURSE	5 LEVEL CDC
21.12.4.2. Troubleshoot				
21.12.4.3. Repair				
21.12.5. PTR ECS, TR: 21M-LGM30G-2-36				
21.12.5.1. Perform periodic inspection				
21.12.5.2. Troubleshoot				
21.12.5.3. Repair				
21.13. Guided Missile Maintenance Platform (GMMP), TR: TOs 35A4-4-9-1				
21.13.1. Function and operation			A	B
21.13.2. Checkout				
21.13.3. Troubleshoot				
21.13.4. Repair				
21.14. Power and communication distribution box, TR: TOs 21M-LGM30G-2-11, 35A4-4-9-1				
21.14.1. Troubleshoot				
21.14.2. Repair				
21.15. Guidance Section Liquid Cooler Test Bench, TR: TOs 21M-LGM30F-2-6, 33D9-17-89-1, 33E9-35-22, 21M-LGM30F-6WC-3				
21.15.1. Coolant subsystem (left)				
21.15.1.1. Checkout				
21.15.1.2. Troubleshoot				
21.15.1.3. Repair				
21.15.1.4. Calibrate				
21.15.1.5. Perform periodic inspection				
21.15.2. Evacuation/Refrigeration subsystem (right)				
21.15.2.1 Checkout				
21.15.2.2. Troubleshoot				
21.15.2.3. Repair				
21.15.2.4. Calibrate				
21.16. Guidance and control liquid cooler system, TR: TOs 21M-LGM30X-2-6, 21M-LGM30F-4-7, 33D9-17-32-1, 33D9-17-81-2, 35E9-35-22, 33D9-17-89-1				
21.16.1. Function and operation			A	B
21.16.2. 400 Hz chiller unit				
21.16.2.1. Checkout				
21.16.2.2. Troubleshoot				
21.16.2.3. Repair				
21.16.3. Control valve assembly				
21.16.3.1. Checkout				
21.16.3.2. Repair				
21.16.4. 400 Hz liquid cooling pump				
21.16.4.1 Checkout				
21.16.4.2. Troubleshoot				
21.16.4.3. Repair				

TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	Core/Cert ^	Deployment * / SEI + CBRN ~	PROFICIENCY CODES	
			3 LEVEL COURSE	5 LEVEL CDC
21.16.5. Liquid cooler filter/assembly				
21.16.5.1. Checkout				
21.16.5.2. Clean				
21.16.5.3. Repair				
21.17. Guidance section liquid cooler test set, TR: TO 33D9-17-81-2				
21.17.1. Checkout/calibrate				
21.17.2. Troubleshoot				
21.17.3. Repair				
21.18. Hydraulic pipe pusher electrical system, TR: TO 35M27-3-11-1				
21.18.1. Perform periodic inspection				
21.18.2. Troubleshoot				
21.18.3. Repair				
21.19. Brine chiller test stand, TR: TOs 21M-LGM30F-6WC-3, 33D9-61-84-11				
21.19.1. Function and operation			A	B
21.19.2. Perform periodic inspection				
21.19.3. Operate				
21.19.4. Troubleshoot				
21.19.5. Repair				
21.20. LF brine chiller, TR: TO 33D9-61-84-11				
21.20.1. Checkout				
21.20.2. Troubleshoot				
21.20.3. Repair				
21.21. MAF brine chiller, TR: TO 33D9-61-84-11				
21.21.1. Checkout				
21.21.2. Troubleshoot				
21.21.3. Repair				
21.22. PPPA Programming, TR: TO 33D9-61-84-11				
21.22.1. Programmable Logic Controller (PLC) Programming				
21.22.2. Panel Display Programming				
21.22.3. Rockwell ® Software Loading				
21.23. Lead acid, chloride, MPP batteries, TR: TOs 21M-LGM30F-6WC-3, 35C2-3-493-1; 35E9-270-1; CEMs 21-SM80X-2-21-X, 35R-1-X51-X, 35M1-1-101				
21.23.1. Perform periodic inspection				
21.23.2. Charge/discharge				
<b>22 TRAINERS AND TRAINING DEVICES</b>				
22.1. Operate sump pump trainers (A/F 374 T25, 37U T2), TR: TOs 43D2-3-XX-1, CEM 21-SM80X-2-24-X				
22.2. Launch Facility Trainer (AN/GSQ T8/T9/T10/T13/T41)				
22.2.1 Operate				
22.2.2 Perform startup				
22.2.3 Perform shutdown				

TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	Core/Cert ^	Deployment * / SEI + CBRN ~	PROFICIENCY CODES	
			3 LEVEL COURSE	5 LEVEL CDC
22.2.4. Perform emergency shutdown				
22.2.5. Perform power restoration after inadvertent shutdown				
22.3. Environmental Control System/power Procedures Trainer (A/F37FU 19/T21/T22/T24/T25), TR: TOs 43D2-3-84-1, 43D2-3-85-1, 43D2-3-89-1, 43D2-3-91-1, 43D2-3-92-1				
22.3.1. Operate				
22.3.2. Perform startup				
22.3.3. Perform shutdown				
22.3.4. Perform emergency shutdown				
22.3.5. Perform power restoration after inadvertent shutdown				
<b>23 UNIQUE OPERATIONAL TEST LAUNCH TASKS</b>				
23.1. Launcher Auxiliary Support Building (LASB), TR: 21M-LGM30F-2-17-9				
23.1.1. Enter				
23.1.2. Exit				
23.1.3. Perform electrical isolation				
23.2. LF/MAF Automatic Transfer Switch (ATS), TR: CEM 21-SM80B-2-21-5				
23.2.1. Troubleshoot				
23.2.2. Repair				
23.3. Portable Diesel Electric Unit (PDEU) power system, TR: CEM 21-SM80-102, AFMAN 24- 306				
23.3.1. Install				
23.3.2. Operate				
23.3.3. Adjust voltage/frequency				
23.3.4. Remove				
23.3.5. PDEU trailer acceptance and preparation for towing				
23.4. Refire control panel, TR: TO 21M-LGM30G-2-7-12				
23.4.1. Checkout				
23.4.2. Troubleshoot				
23.4.3. Repair				
23.5. MAF 01A procedures, TR: CEM 21-SM80-19 (Vol VIII)				
23.5.1. Perform entry/exit procedures				
23.5.2. Perform emergency shutdown				
23.5.3. Perform support building electrical isolation				
23.6. MAF 01E procedures, TR: LJV-576FLTS-E1				
23.6.1. Perform MAF entry/exit				
23.6.2. Perform LCC Entry				
23.6.3. Perform emergency shutdown				
23.6.4. Perform LCEB electrical isolation				
23.7. Corrosion Prevention System Gas Phase Filter Cabinet, TR: TO 21M-LGM30F-6WC-1, 21M-LGM30F-2-17-9, 21M-LGM30G-2-7-12				
23.7.1. Perform periodic inspection				
23.7.2. Troubleshoot				

TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	Core/Cert ^	Deployment * / SEI + CBRN ~	PROFICIENCY CODES	
			3 LEVEL COURSE	5 LEVEL CDC
23.7.3. Repair				
23.7.4. Perform preventive maintenance				
23.8. Corrosion Prevention System Dehumidifier, TR: TO 21M-LGM30F-6WC-1, 21M-LGM30G-2-7-12				
23.8.1. Perform periodic inspection				
23.8.2. Troubleshoot				
23.8.3. Repair				
23.8.4. Perform corrosion prevention system duct cleaning, TR: TO 21M-LGM30F-2-17-9, 21M-LGM30F-6WC-1, 21M-LGM30G-2-7-12				
23.8.5. Repair condensate collection drum, TR: TO 21M-LGM30G-2-7-12				
23.9. Missile bunker winch set, TR: TOs 35D4-2-81-1, 35D4-2-82-1				
23.9.1. Troubleshoot				
23.9.2. Repair				
23.10. GPS/CD Battery, TR: TO 33D9-36-9-2				
23.10.1. Activate/checkout				
23.10.2. Discharge				
23.10.3. Troubleshoot				
23.10.4. Repair				
23.11. Automated Battery Processing System (ABPS), TR: TO 33D9-36-9-2				
23.11.1 Operate				
23.11.2. Calibrate				
23.11.3. Troubleshoot				
23.11.4. Repair				
23.12. HIP E1 Hydraulic Test Stand, TR: TO 33A2-2-87-1				
23.12.1. Troubleshoot				
23.12.2. Repair				
<b>24 VEHICLE AND EQUIPMENT CONTROL</b>				
24.1. Vehicles, TR: AFI 24-302 / AFMAN 24-306				
24.1.1. Maintain vehicle forms/records				
24.1.2. Maintain vehicle accountability				
24.1.3. Issue/receive vehicles				
24.1.4. Perform preoperational checkout of:				
24.1.4.1. Payload transporter (PT), TR: TOs 21M-LGM30G-2-33, 36A9-8-58-1				
24.1.4.2. Payload transporter replacement (PTR), TR: TOs 21M-LGM30G-14-3-1, 21M-LGM30G-2-36				
24.1.4.3. Mechanical maintenance truck, TR: TOs 21M-LGM30G-2-10, 35D4-7-4-2, 36A12-24-3-1, 21M-LGM30F-2-17-9; Owner's Manual				
24.1.5. Perform daily inspection of:				
24.1.5.1. Perform daily inspection general purpose vehicles; TR: AFI 24-302 / TO 36-1-191			1a	
24.1.5.2. Perform daily inspection of special purpose vehicles, TR: TOs 36A12-24-3-1, 21M-LGM30G-2-33				
24.2. Equipment, TR: AFI 24-301				
24.2.1. Maintain equipment accountability, TR: TO 36-1-191				

TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	Core/Cert ^	Deployment * / SEI + CBRN ~	PROFICIENCY CODES	
			3 LEVEL COURSE	5 LEVEL CDC
24.2.2. Perform explosive set circuitry test set self- test, TR: TO 33D9-38-15-2				
24.2.3. Inspect nuclear-certified equipment for serviceability, TR: MNCL, 11N-HRV-5022-2				
24.2.4. Verify/update equipment status using MIS or TAS, TR: MIS or TAS User's Guide				
24.2.5. Equipment issue/receipt				
24.2.5.1. Inspect equipment for general serviceability, TR: Applicable equipment TO			1a	
24.2.5.2. Configure vehicles with equipment for dispatch, TR: Applicable weapon system TO; load list			1a	
24.2.5.3. Issue/receive equipment using MIS or TAS; , TR: MIS or TAS User's Guide				
24.2.6. Nitrogen bottles, TR: TOs 35M1-1-101, 42B5-1-2; AFMAN 91-203				
24.2.6.1. Maintain nitrogen bottles				
24.2.6.2. Install/remove in purge manifold				
24.2.6.3. Perform purge manifold checkout				
24.2.7. Equipment recovery, TR: TOs 00-25-234, 00-24-245, 1-1A-8, 11N-HRV-5022-2				
24.2.7.1. Repair equipment				
24.2.7.2. Process equipment for disposition/maintenance				
24.2.7.3. Fabricate local manufactured equipment				
<b>25 TECHNICAL ENGINEERING</b>				
25.1. Use technical data, special drawings, engineering data, and other data as applicable, TR: Special contractor data; depot instructions; CE technical data; as built drawings; engineering data; Inertial Performance Data (IPD); Launch Facility Activity Data (LFAD)				
25.2. Conduct engineering studies, TR: Applicable technical data				
25.3. Evaluate applicable Engineering Change Proposals (ECPs) and Facility Change Proposals (FCPs), TR: Applicable technical data				
25.4. Perform technical assistance and/or analysis for system effectiveness, TR: Applicable technical data				
25.5. Perform technical engineering EWO planning duties, TR: Local OPLAN directives				
25.6. Perform Disaster Control Group Team duties, TR: Local OPLAN directives				
25.7. System anomalies, TR: Applicable technical data				
25.7.1. Troubleshoot				
25.7.2. Use special engineering test equipment				
25.7.3. Document faults and dispatches				
<b>26 MISSILE MAINTENANCE OPERATIONS CENTER (MMOC)</b>				
26.1. Understand site security requirements, TR: AFMAN 31-108				
26.2. Evaluate/respond to reports from LFs/MAFs, TR: TO 21M-LGM30X-2-1-X				
26.3. Understand large maintenance vehicle operations				
26.4. Understand the maintenance priority system				
26.5. Monitor, update, and delete maintenance data				
26.6. Coordinate with Materiel Control on priority changes, PMCS, NMCS, and MICAP conditions				
26.7. Coordinate unscheduled dispatches, TR: AFMAN 21-200 / AFMAN 21-202				
26.8. Maintain site logs using NMC2				
26.9. Maintain senior controller logs using NMC2				
26.10. Conduct daily GMR/MOSR cross-check				

TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	Core/Cert ^	Deployment * / SEI + CBRN ~	PROFICIENCY CODES	
			3 LEVEL COURSE	5 LEVEL CDC
26.11. Monitor critical equipment and vehicle status, TR: AFMAN 21-200 / AFMAN 21-202				
26.12. Coordinate with BCE on RPIE maintenance requirements and interruptions of normal commercial power				
26.13. Coordinate and document airborne launch and control systems tests, TR: TO 21M-LGM30X-2-1-X, ALCC Log				
26.14. Coordinate and document code change action, TR: TO 21M-LGM30G-2-1-X, AFGSCI 13-5201V5				
26.15. Coordinate and document cannibalization procedures, TR: TO 00-20-2, 33D9-61-76-1				
26.16. Report wing status, TR: AFI 21-103, MCR				
26.17. Use secure communication equipment				
26.18. Process official incoming/outgoing communications				
26.19. Operate ECS Remote Monitoring System (ERMS), TR: TO 21M-LGM30F-2-5-8				
26.20. Operate Remote Environmental Control System (RECS) (576 FLTS), TR: TO 21M-LGM30F-2-30-1				
26.21. Operate remote visual assessment (RVA) system, TR:				
26.22. Use checklists to:				
26.22.1. Respond to disaster situations				
26.22.2. Coordinate PSRE movements/emergency actions				
26.22.3. Coordinate missile movements/emergency actions				
26.22.4. Coordinate RS movements/emergency actions				
26.22.5. Coordinate emergency procedures				
26.22.6. Coordinate missile potential hazards (MPH)				
26.23. Classified material/information				
26.23.1. Process, protect, and destroy				
26.23.2. Handle, store, and account				
<b>27 PLANS AND SCHEDULING, TR: AFMAN 21-202, 21-200</b>				
27.1. Maintenance Schedules				
27.1.1. Prepare and maintain quarterly maintenance plan				
27.1.2. Prepare weekly utilization and maintenance plan				
27.1.3. Conduct weekly scheduling meeting				
27.1.4. Prepare daily utilization and maintenance plan				
27.1.5. Conduct daily scheduling meeting				
27.2. Plan and coordinate				
27.2.1. Simulated Electronic Launches				
27.2.2. Hardness Surveillance Electromagnetic Pulse (HSEP) tests				
27.2.3. Code change / OLYMPIC STEP				
27.2.4. TCTO/MCL modification program				
27.2.5. EWO generation meeting				
27.2.6. Periodic maintenance program				
27.2.7. Programmed Depot Maintenance (PDM) programs				
27.2.8. NST Inspection support				
27.3 AVDO, TR: AFI 21-103				



TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	Core/Cert ^	Deployment * / SEI + CBRN ~	PROFICIENCY CODES	
			3 LEVEL COURSE	5 LEVEL CDC
27.3.1. Coordinate Missile Shipment requirements with Depot				
27.3.2. Prepare documents for outgoing shipment				
27.3.3. Verify Booster configuration for shipment				
27.3.4. Receive incoming booster				
27.3.5. Email Change Reports				
27.3.6. File electronic/hardcopy documents				
<b>27.4. Scheduling Programs</b>				
27.4.1. Develop daily work packages				
27.4.2. Manage job standard transactions (JSTs)				
27.4.3. Manage Maintenance Scheduling Effectiveness program				
27.4.4. Complete/coordinate AF Form 2407				
<b>27.5. Reentry systems</b>				
27.5.1 Run Line 100 checklist				
27.5.2. Build RS movement briefing				
27.5.3. Execute meeting/distribute slides				
<b>27.6. Site files, TR: TO 00-20-1, AFMAN 21-202</b>				
27.6.1. Maintain site files				
27.6.2. Process AFTO Form 95s				
27.6.3. Process physical inventory sheets				
27.6.4. Process AFTO Form 430s				
<b>28 QUALITY ASSURANCE, TR: AFMAN 21-200, AFMAN 21-202</b>				
<b>28.1. Inspections</b>				
28.1.1. Conduct management inspections				
28.1.2. Conduct quality verification inspections				
28.1.3. Conduct activity inspections				
28.1.4. Conduct special inspections				
28.1.5. Oversee one-time inspections, TR: TO 00-20-1				
<b>28.2. Proficiency evaluations, TR: AFMAN 21-200</b>				
28.2.1. Conduct personnel proficiency evaluations				
28.2.2. Conduct trainer proficiency evaluations				
28.2.3. Document evaluations/inspection results				
<b>28.3. Technical data, TR: AFD 63-1; TO 00-5-1, AFGSCI 32-1005.</b>				
28.3.1. Review new/revised technical data				
28.3.2. Review local publications/instructions				
28.3.3. Review approved AFTO 22/AFGSC 272s				
<b>28.4. Training</b>				
28.4.1. Conduct QA Orientation Course				
28.4.2. Conduct Deficiency Reporting course				
28.4.3. Review local training products (lesson plans, task breakdowns, etc)				

TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	Core/Cert ^	Deployment * / SEI + CBRN ~	PROFICIENCY CODES	
			3 LEVEL COURSE	5 LEVEL CDC
28.5. Product Improvement Program, TR: AFMAN 21-200				
28.5.1. Process deficiency reports, TR: TO 00-35D-54. AFMAN 23-122				
28.5.2. Process technical data changes (AFTO 22s/AFGSC 272s)				
28.5.3. Process modification proposals (AF 1067), TR: AFI 63-101, AFI 20-101				
28.5.4. Conduct review of TCTOs/MCLs				
28.5.5. Coordinate Technical Assistance Requests (TAR), TR: TO 00-25-107				
28.5.6. Coordinate Maintenance Assistance Requests (MAR), TR: TO 00-25-107				
28.6. Review MMOC checklists				